



News Summary

BUSINESS

Belfast Equities close bombing above kills 2 worst

BY PHILIP RAWSTORNE

The Government yesterday embarked on what promises to be one of the most arduous and bitterly-fought legislative programmes since the war with the fulfilment of its Common Market policy at the core of a series of controversial measures.

Mr Harold Wilson, Leader of the Opposition, opened the which introduces the "fair rents" principle with a national rebate scheme for council housing and rent allowances for private tenants—was marked by Mr. Wilson yesterday for special clause, line by line, hour by hour, day by day and night by night."

Until the uncertainties of the Common Market legislation are reached, the Opposition can count on the full-hearted support of all its MPs for the assault on the rest of the Government's programme. It seems certain that the Government will be forced to early use of the guillotine procedure.

This Bill, together with legislation to establish a network of local commercial radio stations, will be published today. They will be followed tomorrow by the Bill to reform the pattern and powers of local government.

Mr. Wilson did his utmost yesterday to exhort his MPs to full-scale opposition by concentrating his attack on the Prime Minister's "complacent" attitude towards unemployment and prices, contrasting it with the "obsessional" pursuit of the Common Market and such "Selston" policies as law and order.

The two main Opposition debates next week will be on unemployment—in which Mr. Roy Jenkins and Mr. Anthony Wedgwood Benn will lead—and housing.

Mr. Heath angrily rebutted the charges against him. And, in the course of an optimistic review of the economic prospects declared that the next few months would give the Government the opportunity to strengthen the forces which are now moving towards stability.

Continued on Back Page

It is the Government's intention to get most, if not all, of its Bills except those dealing with the Common Market, through Parliament by next Easter. This would leave the rest of the session for the immoveable Finance Bill and the Common Market legislation.

But few MPs last night were as sanguine about this prospect as Government Ministers. Some Bills will have to be dropped from the programme eventually, to strengthen the forces which are in the opinion of many MPs on both sides. And the majority still

Reserves rise by another £82m.

By William Keegan,
Economics Correspondent

THE U.K.'s official reserves rose by £82m (£197m.) last month to a new peak of £2,71m (£521m.) the Treasury announced yesterday.

This was after advance repayment of a DM200m (£22m.) loan made by the Bundesbank in 1968-69 in connection with the Anglo-German defence offset agreement.

It is believed the actual inflow last month was somewhat greater than the £105m implied by the increase in reserves and the German repayment.

A large part of the inflow is accounted for by the fact that the balance of payments is still running in strong surplus on current account, and the specu-

Urgent peace moves at Heathrow

BY MICHAEL HAND, LABOUR CORRESPONDENT

URTENT peace moves were being made last night in the field at the airport today and the dispute which has crippled London Heathrow airport since Monday. There came at the end of a day in which British European Airways and the British Airports Authority took drastic steps to quell the revolt by militant Heathrow workers who are objecting to an independent company extending ground handling services at the airport.

Shop stewards were saying yesterday that the only way to end the strike was for the BAA to "freeze" for a month a ground handling contract which came into force on Monday between the Spanish airline, Iberia, and GAS, and which sparked the present row. The stewards are suggesting that a third party could carry out Iberia's ground handling during that period, during which they envisaged negotiations taking place to try to settle the dispute. According to the stewards the BAA has already rejected this idea.

Warnings

Failing a quick settlement, the stewards are issuing warnings that the strike could spread to other British and European airports.

The stewards object to GAS on the grounds that its operations mean work being transferred away from State employers such as BAA, BEA and BOAC, to a private enterprise concern, which they describe as "back-door de-nationalisation" and which they say poses a threat to jobs. BAA has said repeatedly that there will be no redundancy and this view has been upheld by a Government inquiry.

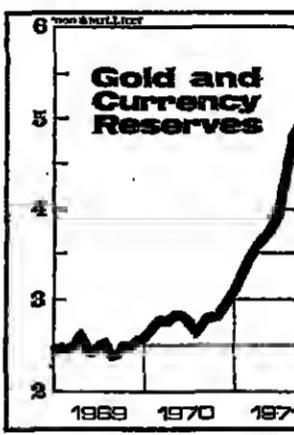
Many foreign airlines use either BOAC or BEA for ground handling services but some have their own. BAA appointed an independent agency to provide an alternative service for airlines without their own who might not want it supplied by a competitor. GAS already has contracts with Saudi Arabia Airlines, previously handled by BOAC, and with Ariana Afghan Airlines, previously handled by Pan American. Stewards failed in their attempts to get these two airlines to "freeze".

But Monday's mass meeting decided to take this step against Iberia. This led to clashes between workers and the airport police during which 40 arrests were made.

In turn workers have complained about police behaviour on which stewards yesterday blamed the worsening situation at Heathrow.

A request for an immediate inquiry into allegations of rough handling and the use of police dogs at Heathrow on Monday has been made by Mr. Neville Sanderson, MP for Hayes and Harlington in a letter to the Home Secretary yesterday. Union leaders have made a similar demand.

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Law report Page 31



lative inflow continued in October, although it was slowed down by the tightening of exchange controls early in the month.

The point has now been reached where the UK's official reserves amount to over five times its outstanding debts of £415m. (£897m.) to the International Monetary Fund.

Although the remaining IMF debts do not fall due until the middle of next year, the Government would like to make these payments in advance and he said to proclaim that the entire load of short- and medium-term debt had been paid off.

Before Mr. Mansfield joined the talk it was learned that BEA had said that it was prepared to suspend its earlier ultimatum to its workers while there was a chance of a solution being found.

At the meeting the unions put forward proposals for ending the dispute, believed to include a temporary freeze on GAS seeking and agreeing new contracts, machinery for consultation with the unions on all work of this kind, and an undertaking from the BAA that there should be "total job security" at the airport.

The unions said the Authority should also consider what procedures there should be for awarding ground handling contracts when the initial five-year contract expires.

Report of Conference
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Barber takes a buoyant view of the economy

BY JOHN HUNT

BRITAIN now has the opportunity of achieving a period of sustained economic growth at a faster rate than for many years past. Mr. Anthony Barber, Chancellor of the Exchequer, said yesterday.

It is true to say that never has any Government done more to stimulate demand and so

creata employment," he went on. "But inevitably it takes time for these measures to work through consumer demand, into orders, more production and more employment.

"But the signs are that the economy is now expanding at the rate of at least 4 to 4½ per cent which I forecast in July—a rate twice as fast as the average for the past six years.

"With the implementation of our long-term reforms there is every reason to believe that there is now the opportunity of a period of sustained growth at a

S. Pearson bids £12.5m. for Doulton and Co.

BY KENNETH GOODING

PROPOSALS for major changes in Britain's tableware industry were put forward yesterday by S. Pearson and Son, Lord Cowdray's financial and publishing group.

Pearson is to make £12.5m. bid for Doulton and Co., makers of Royal Doulton and Mintons china, and if this is successful will buy up the outstanding shares in Allied English Potteries, the Royal Crown Derby group, in which it already has a two-thirds stake.

By combining these two, Pearson would have a subsidiary accounting for between 20 and 30 per cent of the U.K. tableware market and a little larger than the current leader, Wedgwood.

But first Pearson has to get control of Doulton. Two previous attempts to talk about a merger—the latest was a year ago—were friendly but produced no concrete results.

Yesterday's proposals were put

before Doulton and its advisers, J. Henry Schroder Waterson, by Pearson and his bankers, Lazarus Brothers without earlier consultation so that a "leak" might be avoided.

The proposed terms value each Doulton Ordinary at about 84p and after the news they jumped 15p to 76p. The offer for the outstanding shares in Allied English shares will be worth 50p each and this produced an increase of 5p in the price last night to 44p. The Pearson shares closed 6p down at 33p.

A spokesman for Pearson last night stressed that it was hoped to keep the situation friendly and that Doulton would put forward its own ideas on that basis. Pearson believed, he stated, that there were both opportunities and severe competition ahead. Together Doulton and Pearson Ordinary plus 45p of loan stock for every 11 Doulton Ordinary. The new shares would not rank for the 7½ per cent.

Allied English could take the interim dividend announced on Common Market and North for the Preference shares and America while at the same time convertible loan stock of dealing with growing competition.

from the Japanese and American producers.

"The new group would have a fine range of products, resources for new investment and growth and the quality of management needed. Without a merger we do not believe the individual companies would in the long run be strong enough to deal with the coming competition," he added.

Apart from its tableware interests, Doulton, which has Mr. J. G. Beevor as chairman, makes industrial ceramics and sanitary ware. It is understood the Board will be meeting today to discuss the approach.

The offer would be of two Pearson Ordinary plus 45p of loan stock for every 11 Doulton Ordinary. The new shares would not rank for the 7½ per cent.

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ANNUAL STATEMENTS

INTERIM STATEMENTS

FLOATING £

% change

Nov. 2 Nov. 1 Yr.ago

U.S. \$ 2,095 +0.3 +4.9

Can. \$ 2,320 +2.3 -3.5

U.S. £ 8.35 +0.2 -3.9

Yugoslav. 12.02 +0.4 -3.3

West. 1.52 +0.1 -3.7

H. 1.62 +0.1 -3.5

2-French Fr. 13.78 +3.5 +1.1

Jap. yen 102.0 +2.2 +5.2

Swiss Frs. 9.98 +1.2 +1.4

REINTERVALISATION INDEX OF THE KEY COUNTRIES

1. Closed yesterday

2. Commercial

3. Industrial & Commercial Fin. Cpl.

4. Financial Group of Companies

5. Gemco Holdings

6. Maynards

7. Miles Masters

8. Telecommunications

9. Vickers

10. Wimpey (Geo.)

11. Wimpey (Vic.)

12. Earnings Yield

13. P/E Ratio

14. Dividend Yield

15. Div. Yield pc

16. Div. Yield %

17. Div. Yield 12m

18. Div. Yield 12m pc

19. Div. Yield 12m %

20. Div. Yield 12m 12m

21. Div. Yield 12m 12m pc

22. Div. Yield 12m 12m %

23. Div. Yield 12m 12m 12m

24. Div. Yield 12m 12m 12m pc

25. Div. Yield 12m 12m 12m %

26. Div. Yield 12m 12m 12m 12m

27. Div. Yield 12m 12m 12m 12m pc

28. Div. Yield 12m 12m 12m 12m %

29. Div. Yield 12m 12m 12m 12m 12m

30. Div. Yield 12m 12m 12m 12m 12m pc

31. Div. Yield 12m 12m 12m 12m 12m %

32. Div. Yield 12m 12m 12m 12m 12m 12m

33. Div. Yield 12m 12m 12m 12m 12m 12m pc

34. Div. Yield 12m 12m 12m 12m 12m 12m %

35. Div. Yield 12m 12m 12m 12m 12m 12m 12m

36. Div. Yield 12m 12m 12m 12m 12m 12m 12m pc

37. Div. Yield 12m 12m 12m 12m 12m 12m 12m %

38. Div. Yield 12m 12m 12m 12m 12m 12m 12m 12m

39. Div. Yield 12m 12m 12m 12m 12m 12m 12m 12m pc

40. Div. Yield 12m 12m 12m 12m 12m 12m 12m 12m %

41. Div. Yield 12m 12m 12m 12m 12m 12m 12m 12m 12m

Letters to the Editor

N. Ireland

Sir.—I wish to comment on two recent articles on N. Ireland—John Graham's "Democracy runs riot" (October 28, Page 27) and Dominic Coyle's "Lynch takes a stronger line on N. Ireland" (October 29, our first edition only).

Mr. Graham deals with the two new Nationalist "Parliaments" and points out the frustration of a party being in opposition for 50 years and with little likelihood of government in the near future. He points out that the present terrorism is causing almost complete polarisation of the population resulting in inter-denominational politics becoming less likely.

One is left with the impression that the present terrorism and unrest is the result of 50 years of minority frustration and is therefore almost justified. It is not. It is merely the latest in a series of such campaigns which recur at 10-15 year intervals.

These campaigns all originate in the South and at last in their opening stages suffer no discouragement from the Southern Government. In the intervening years, Southern propaganda is perpetually directed at the N. Ireland Roman Catholics (aa Roman Catholics) to ensure that they do not integrate into the community.

Major contribution

When Mr. Coyle reports an Eire official as saying that "there can be no solution...not endorsed by the Government down here," he is reporting a great truth: the major contributor to the trouble in N. Ireland is the Eire Government. To blame the Northern Roman Catholics for the trouble in unfair; they are being manipulated as any easily distinguished group can be manipulated by vicious propaganda / market research methods.

At the same time, the Northern Protestant sees the very real threat to his position and his entrenchment is at least understandable.

A United Ireland can only be achieved if trust exists on both sides. In 50 years, successive Eire Governments have failed to produce any single action aimed at reducing inter-community tensions—either North or South. Instead, there has been 50 years of manipulation, interference, incitement and threats.

It has become an increasingly popular (and widespread) occupation to demand "new political initiatives" in N. Ireland, though the proposers are often unequal to indicating what these might be.

Political initiatives must be taken, however. The Eire Government must be told to terminate its destructive interference in N. Ireland forthwith; the term "Far Western Christian

As Eire is completely dependent upon British goodwill and special trading conditions (often better than for Commonwealth countries) for its economic survival, Britain is in a position to make these demands and ensure their fulfilment.

EEC and the small firm

Sir.—I am writing to allay any fears that Mr. Instone's letter (Nov. 1) may have aroused that British small business is not represented at all in Europe.

As well as having its own "man in Brussels," the Smaller Businesses Association is Britain's member of the "Union Internationale de l'Artisanat et des Petites et Moyennes Entreprises"—International Association of Crafts and Small and Medium-Sized Enterprises (UIAPME).

The UIAPME, whose headquarters are at Geneva, includes representatives of all the EEC countries, and at this very moment three SBA delegates are attending the UIAPME Autumn Conference in Geneva, where the relative situation of British small businesses in the EEC configuration will be one of the chief points of discussion.

In addition, I hope that it may further reassure Mr. Instone to know that the SBA has already invited the President of the UIAPME to its Annual General Meeting on November 19 so that he may have an opportunity to meet Mr. John Bolton, who is the main speaker.

Should a further Bolton Inquiry be set up to report on small businesses in the EEC, the SBA would be glad to assist by providing information that it has acquired during its three year membership of the UIAPME.

Shirley Pickett,
General Secretary,
Smaller Businesses Association,
6 Halbom Viaduct, E.C.I.

A surfeit of seminars

Sir.—Your paper dated Monday, November 1, contains an article headed "Lack of interest" hints seminar on marketing in Europe, and tells of PA Management Consultants' disappointment at finding it has had to cancel the seminar on marketing in Europe. I would suggest that the phrase "lack of interest" is perhaps the wrong one to use. Every suggestion that deals in consultancy or seminars has been put on seminars about the Common Market. Many people have probably already long since heard to a sufficient number of these for the "natural" demand for these other goods and services will be

What people now need to know artificially suppressed because of what they are in their firm, are the diversion of expenditure to going to do. Another generalised the controlled-price goods.

One seminar is not going to help. Even if, as mentioned, certain labour demands are moderated there will be set in motion a tendency for labour of the quality required for the production of controlled-price goods to find employment elsewhere. It must be concluded that voluntary compliance with the administration of the CBI is no substitute for an effective economic policy.

Ian Thomson
Aptado 6421,
Caracas, Venezuela.

CBI and prices

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A. E. Overden,
61 Elizey Drive,
West Ella, E. Yorks.

[Elisabeth Ganglion writes: the 50 per cent or more failure rate was the Institute's assessment—not mine.]

Air freight rates

Sir.—Mr. Robert McKinnon (October 27) rightly points out that there has been an open rates situation since October 1, following the delay in implementing the new rates structures agreed for most air routes at the 1971 IATA cargo conference in Singapore. In practice, however, airlines have continued the status quo, and rate cutting has not developed. Following a meeting of airlines in Geneva on October 15, the new rates are now effective with the exception of North Atlantic routes.

The present situation therefore, is that although there is technically an open rate position, there are fixed rates for air freight except on the North Atlantic. Regarding these routes, a meeting is to take place on November 23, when it is expected that new schedules will be agreed. Until then, the so-called new rates situation will not mean a "free-for-all" because scheduled airlines will continue to use previous rates.

In most instances, prices are artificially constrained from being significantly raised while variable production costs are carrying on climbing. If the prices of the controlled goods are not allowed to rise, while the prices of other goods and services are so allowed, expenditure will be diverted from the latter to the former. The former will be sold at less than economic cost, which together with the fact that demand will increase, will have disastrous consequences for the profits of the companies concerned.

If such a policy were any more than temporary, investment would not be made in the production of goods which are subject to control whereas it would have been made in unconstrained circumstances. It also follows that investment elsewhere will be lesser than otherwise it would have been, for the "natural" demand for these other goods and services will be

R. E. Fleather,
Freight Management
Dorset House,
Stamford Street, S.E.1.

Management accountants

Sir.—Your reporter, Elisabeth Ganglion, in referring to the Student Register of the Institute of Cost and Works Accountants (Oct. 29, page 12), implies that half of them will not pass the examinations. This is not true of the register as a whole, though it is unfortunately true of any single cohort of the examinations.

In this respect the pass/failure rates of the Institute of Cost and Works Accountants are not noticeably different from those of other bodies of accountants.

The Institute has taken steps which will raise the academic

quality of the student intake and this should have the effect of raising the pass rate at the examinations. But a reference to the percentage pass rate at examinations is by no means a reliable indication of the percentage of present day students who will eventually be admitted to membership.

A. E. Overden,
61 Elizey Drive,
West Ella, E. Yorks.

[Elisabeth Ganglion writes: the 50 per cent or more failure rate was the Institute's assessment—not mine.]

Transport in rural areas

Sir.—The concern expressed by your correspondent Mr. R. E. Norton on October 28 regarding the steadily worsening position of public transport services, particularly in rural areas, will attract sympathy from many quarters.

As will be apparent from the Report of the Select Committee on Nationalised Industries published on October 19, 1971, my committee are taking the matter of extra powers to enable them to safeguard the interests of the users of the nationalised road passenger services. The Select Committee have recommended that the Transport Users Consultative Committee should have a continuing interest in matters affecting bus services introduced as alternatives to withdrawn rail services, and a say in co-ordination between the various forms of public transport. This is a step in the right direction.

L. E. Plenty,
Secretary,
Central Transport Consultative Committee.

34 Great Marlborough Street, W.I.

Buses for the future

Sir.—Mr. R. E. Norton (October 28) rightly points out the need to maintain public transport for those who do not

have their own, but why does he assume that rail transport is needed for rural areas?

The much more flexible modes of operation associated with buses can provide more widespread and convenient service for the same money.

With buses also there is no need to maintain costly exclusive track only used at a tiny fraction of its capacity.

In the U.S. rail passenger transport hardly exists outside very large urban areas. For inter city surface transport rail is rapidly being replaced by

buses which will raise the academic

value of the service. Apart from this transport of the future.

Mr. Norton is also concerned with pollution, but rail systems already in operation, if used three to four times as much, will reduce pollution rather than fuel per passenger mile as do growth, results in the erosion of capital which is then spent and using up our reserves of fossil fuels at a faster rate.

Even with electrified rail systems the pollution is being country, world eventual bankruptcy.

3.—Government investment in private industry would doubtless lead to interference with management by Whi

In any event, one can invest in unit and investment trusts, whose practical effects must surely outweigh woolly theories of the so-called "planners," and who are more discriminatory than the Government body has shown itself to be where concerned.

S. W. Fenwick,
536 Salisbury House,
London W.1, E.C.2.

Commercial radio

Sir.—Mr. Metcalfe (Octo

has asked for clarification commercial radio figures forward on behalf of Redi Radio Holdings. He may so because estimates vary from upwards.

Towards of last year the Local Association was talking £45m. and I understand figure of £24m. was quoted.

We made a safe estimate of a total gross revenue, from all advertising £10m. from stations serving 25 per cent of the population for stations different population area been based on pro-rata according to population.

We expect the response to build steadily, but we budget for any station to its full share of revenue in its first year.

These calculations are with great caution. Never we find a worthwhile return he expected from stations serving the large.

The figures do not look for smaller areas, but the way in which we think position can be improved.

A gross figure of £100 million, the very least expect. But it is a good prospect when everybody has to make estimates.

Graham Binns,

Chief Executive, Rediffus Carlton House, Lower Regent Street, S.W.1

Jumper of promise

by DARE WIGAN

THERE is no doubt that County

tenham, gave evidence of his potential when easily winning a

W. D. and H. O. Wills Premier

Chase qualifier on October 13.

To-day he goes for the Bagshot

(130) at Newbury and I

expect him to be too good for Jockey.

In the absence of Tontallum, Grey Sombrero, which ran clean away from Flying Leaf and Vichyssoise at Cheltenham last month, ought not to have much difficulty in winning the Lionel Vick Memorial Handicap Chase (2.00).

Lucy Edgar was out disgraced when finishing fifth behind Ton-tailum in the Totalisator Champion Chase at Cheltenham last March. Admittedly his jumping is inclined to be erratic, but if he were to reproduce the form shown when defeating Rome Express over three miles at Newbury last February, he would win the Marsh Benham Handicap Chase (2.30).

Some useful hurdlers will contest the Seven Barrows Handicap (3.00) and the issue here probably rests between Corribot II, and Shanty Atty.

Corribot II, after winning easily at Ludlow, finished third to

Dondie and Bolts in the

Fighting Fifth hurdle at Newcastle last Wednesday and is set to concede Shanty Atty 2 lbs.

This concession may be more than he is able to manage.

There is little form to go on when tackling the two divisions of the Gold Ash Novices' Hurdle but Walk On in Division I (1.00) and Eastern Lover in Division II (3.00) seem to be the logical selections.

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Extra-ordinary meetings

PETER J. G. CLOXHORN,

WEST HARLEPOOL STEAM HAN-

TON, Harlepool, 12.15. (Chair-

Mr. J. E. Gurnell.)

WILLIS INVESTMENTS, St. M.

Wigan, 12. (Chairman, Mr. J. G. Cloxhorn.)

IBPA

PARLIAMENTARY BUSINESS

Houses of Commons Debate &

No. of Lords' Debate on the C.

COMPANY MEETINGS

ASERILITE, Shropshire, 1. (Chair-

Mr. J. A. B. Harroldes.)

ANIGERIA, 55, Moorside, E.C.

(Chairman, Sir Douglas Warne)

BOWGATE AND GENERAL IN-

VESTIGATION, 1. (Chairman, Mr. D. Macmillan.)

CALLIFORD BRINDLEY, Rugby,

(Chairman, Mr. P. Thompson.)

CHALMERS LTD, Liverpool, 12. (Chair-

Mr. J. G. Cloxhorn.)

COMPANY DIRECTORS

CHALMERS LTD, Liverpool, 12. (Chair-

Mr. J. G. Cloxhorn.)

COOPERATION, Liverpool, 12. (Chair-

Mr. J. G. Cloxhorn.)

DRYDOCK LTD, Liverpool, 12. (Chair-

Mr. J. G. Cloxhorn.)

EDWARD LTD, Liverpool, 12. (Chair-

Farming and Raw Materials

Disease in poultry worsening

By Our Commodities Staff

TECHNOLOGICAL advances in the poultry industry are likely to make the problems of disease worse rather than better. Dr Robert Gordon, director of the Houghton Poultry Research Station, Huntingdon, told the poultry industry conference in Eastbourne yesterday.

Loses from disease already cost the industry between £20m. and £40m. a year, he said. This was apart from the cost of treatment and control which could amount to another £10m., and from production losses, which for eggs alone had been estimated at £10m. a year.

Man was creating environmental conditions which enabled disease to attack the maximum number of birds in the minimum time.

"Modern technology and speed of travel have added further to the dangers of international transmission of disease. Improvements in the use of frozen products provide a medium for the preservation of many of the most infective agents," he said.

Dr. Gordon estimated that losses from the current endemic of fowl pest could be as costly as that of the foot and mouth disaster of 1967-68. That cost the Ministry of Agriculture £25m., in compensation to farmers for slaughtered animals and administrative expenses.

Since August last year, the fowl pest endemic had brought more than 7,000 outbreaks, involving 44m. laying hens, broiler chickens and turkeys.

ISRAEL EXPORTS OF POLISHED DIAMONDS UP

By Our Own Correspondent

TEL AVIV, Nov. 2.—THE steady rise in Israeli exports of polished diamonds since the beginning of this year continues. Statistics for the first nine months show a gain of over 20 per cent. over the parallel period of 1970 to a net £155m., worth sold abroad as compared with \$152m. in January-September last year.

Imports of cut and stones rose even more sharply—reflecting the confidence in a continuation of the upward trend of exports.

Silver slips to 8-year low

By JOHN EDWARDS

ANOTHER SHARP fall in silver prices yesterday brought values down to the lowest level for eight years in the U.K. and for 41 years in the U.S.—the difference being caused by the devaluation of sterling in November 1967.

The silver spot quotation was marked down by 8s. to 51s. a troy ounce (127.2 U.S. cents) by the London bullion brokers' morning fixing yesterday, and at the close of the day London Metal Exchange rates were trading at 51.15s.—6s. down on the previous close.

Gloomy forecasts

The latest downturn in silver was started in New York on Monday, encouraged by the decline in Wall Street and gloomy forecasts about the state of the U.S. economy generally.

It seems possible now that the New York professional speculators are keen to test the strength



of the supposed "floor" price of 125 cents an ounce—the level at which U.S. Treasury is obliged to buy up all new supplies of silver mined in the U.S., equal to some 45m. ounces a year.

Theoretically the buying up of U.S. silver production by the Treasury at 125 cents should bring a halt to the decline in silver value. But since the law of supply and demand apparently has no effect on the market, it could well be that silver prices will simply ignore this new "landmark" as happened with the ending of the U.S. Treasury weekly sales of silver in November 1970.

To practise the gradual removal of 45m. ounces a year is unlikely to have any short-term effect on the market, especially as the Treasury can re-sell any purchases back whenever the spot price goes over 120.3 cents an ounce.

Stocks held in speculative hands are still enormous, and the disillusionment with silver as an investment growing at the lower level, but the downward trend of prices seems to contradict this as a serious market influence so far. Any real recovery in the silver market cannot be expected to be sustained until there are definite signs of a recovery in the U.S. economy—hence the depressing impact of the decline in Wall Street on the silver market.

In 18 years, therefore, that the next testing point for silver could be the 125 cents level, which could well come into the fore when the New York market opens after yesterday's close-down for local elections.

Fertiliser information pact

By ROBIN REEVES, COMMODITIES EDITOR

FISONS, ICI and Shellstar, have signed a formal agreement to exchange information about the U.K. fertiliser industry and its future.

The agreement, announced yesterday, is effective until 1981 and will confine itself to information about the size of the U.K.

Marketing policies and practices, customers and prices are not included in the agreement.

market, its likely growth and how this equates with existing production capacity and any plans for increased capacity, taking into account estimates of imports and possibilities of exports.

Marketing policies and practices, customers and prices are not included in the agreement.

The companies, which between them account for all but a small proportion of the U.K. fertiliser market, both the exchange of information will allow existing capital to be more efficiently used and will reduce the risk of under- or over-capacity or premature investment by allowing more informed decisions to be made.

If successful, the agreement should help productivity and enable the companies to make more efficient use of cash flow.

Moreover, any move calculated to ensure the fullest use of existing investment should contribute towards containing costs.

At the same time, the three companies are not exactly in the dark about each other's plans and forecasts. Informal contacts have long enabled them to compare notes, but in the recent past at least, all forecasts have been notably wrong. A combination of all three may not necessarily produce a better answer.

The Department of Trade and Industry, the Ministry of Agriculture and the National Farmers' Union have been informed of the agreement which results from talks among senior executives of the three companies over the past 18 months.

Mr. S. Boothland, ICI market planning manager, said 78 per cent. of Britain's 30m. sheep were in medium to heavy fluke regions and 69 per cent. of the 15m. cattle were in heavy fluke areas.

Mr. J. C. Clay, managing director of the London Produce Clearing House, forecast yesterday.

Mr. G. T. Moore, president of the London Metal Exchange, said:

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American News

Rogers asks Congress to reverse Senate foreign aid veto

BY GUY DE JONQUIERES

THE Secretary of State, Mr. William Rogers, urged Congress today to reverse the Senate's veto of the foreign aid bill, which he called a "very serious blow" to U.S. foreign policy.

Mr. Rogers, who met with President Nixon for an hour this morning, will personally put his case to Congress tomorrow morning. He said he is confident that Congress will act responsibly by agreeing to "repair the damage which has been done."

Mr. Rogers said that the Administration believes that the foreign aid mechanism needs reforming, but that changes should only be made after lengthy consideration. In the meantime, he expects Congress to enact a new "continuing resolution" to extend the aid programme after November 15, when it is due to expire, for 90 days.

However, opposition to such a proposal has already been expressed by Senator J. William Fulbright, Chairman of the Foreign Relations Committee, and by Senator George McGovern, the leading Vietnam war critic, on the grounds that it would extend military aid programmes.

Senator McGovern announced today that he will offer instead a resolution to re-draft the Foreign Aid Bill,

restoring economic and development

WASHINGTON, Nov. 2.

ment aid to their original requested levels and cutting out all military aid, except \$300m in military sales credits and \$85m in military assistance for Israel.

His projected legislation would also contain an outright ban on arms sales and aid to Greece and substitute for two other "end the war" amendments the McGovern-Hatfield Amendment calling for a cut off in funds unless all U.S. troops are withdrawn from Vietnam within six months.

Mr. Rogers did not comment on this proposal today, but it would quite clearly be unacceptable to the Administration, which is arguing that a cut off of military aid is profoundly damaging to the "Nixon Doctrine" both in Vietnam and elsewhere and weakens the Administration's hand in foreign negotiations.

However, the credibility of the Administration's stand on the aid question has been undoubtedly weakened by both official declarations earlier last week that it would rather have no Foreign Aid Bill at all than one which ends the war.

Senate had been attached, and by President Nixon's threat to cut off aid to some countries which enthusiastically greeted the expulsion of Taiwan from the United Nations.

Caribbean Bank limit

BY OUR OWN CORRESPONDENT BRIDGETOWN, Nov. 2.

THE BOARD of Governors of the Caribbean Development Bank has decided here to limit the expansion of the bank so that Commonwealth Caribbean members will always have a majority of votes and directors.

A meeting of the Board which ended here over the weekend drafted conditions on which new members may be admitted to the Bank. These include a 50 per cent increase in the price of shares to \$7,500 each and the limitation of shareholding to new members of 600 valued at \$4.5m.

In addition, the Governors decided that there should not be more than 3,450 new votes or more than four new directors.

The Bank at present comprises 16 members—14 from the Commonwealth Caribbean plus Britain and Canada.

Earlier this year Lima and Peking had established commercial relations and there is now a four man permanent Peruvian trade mission in Peking, and an equivalent in Lima which arrived a few weeks ago. Peru has already arranged the sale of and begun shipping copper, lead, zinc and fishmeal to China.

It is not known what China

would export to Peru, although

two years ago a Peruvian rice shortage was filled by imports

from China. Peru voted for the entry of Peking to the UN

but Foreign Minister General

Edgardo Mercado Jarrin has

since stated that Peru is not

bappy about the expulsion of

Taiwan.

St. Lucia may upset union plan

BY OUR OWN CORRESPONDENT

PLANS for the establishment of a new political union of the six Commonwealth Caribbean governments by March 1973 officially announced yesterday could be hampered by the unexpected reaction of the Premier of St. Lucia, Mr. John Compton.

Mr. Compton said his Government would have to re-examine its position because of the absence of three major eastern Caribbean territories—Antigua, Barbados and Trinidad and Tobago.

Mr. Compton said his Government had agreed to take part in the new State on the assumption that Antigua, Barbados and Trinidad and Tobago would also join. As the position now stands, he said, with Guyana having about two-thirds of the population in the proposed union "it is an unbalanced affair and has got to be re-examined by St. Lucia at least."

BRIDGETOWN, Nov. 2.

Guyana has a population of 750,000 out of a combined total of approximately 1.2m. St. Lucia has 120,000 people.

Mr. Compton's stand could well upset plans to have the new State operational by the end of March 1973.

It is unlikely that Antigua,

Barbados or Trinidad and Tobago

will agree to take part in the new nation in the near future.

and if Mr. Compton sticks to his contention that St. Lucia will not join without the attitude

of the other smaller islands which signed the declaration could also change.

SALVADOR ELECTIONS

Power in the hands of few

BY ALAN RIDING

E STAGE is set for next by launching them as possible victory for the moderates in the Presidential elections in El Salvador, where the army-ruled incumbent party is making its first serious challenge to a decade from a coalition led by Christian Democrats.

The ruling National Conciliation Party (PCN) is generally expected to win, but there is sufficient doubt to make things interesting.

The call to insurrection has come from the Chilean Communist Party, a strongly orthodox row-line organisation which set its face firmly against left action.

Many United States closed several New York local

candidates, then ensuring that army and PCN, and should ensure their reputations are burned by sure continuity of this controversy. In the end, in a administration's general policies, gesture of apparent compromise, But the defeat of the Right at the President pulled out the name of the pre-candidate stage produced a new breakaway movement of rich landowners, the Independent Democratic United Front.

St. Lucia, the scenario was only slightly changed because of the consensus that El Salvador's (FUDI), and gave new strength to the Popular Salvadorean UN ambassador, Reynaldo Galindo Pohl, should be the PCN candidate. Highly respected at home and abroad, Galindo Pohl is the FUDI's violent opposition to the Popular Salvadorean Party (PPS), an alliance of conservative business men.

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Export News

Monocable ropeway for Bahrain smelter

Financial Times Reporter

BRITISH ROPEWAY ENGINEERING COMPANY part of the Glover Group, of Sevenoaks, Kent, has completed the installation of a 6½-mile monocable ropeway which will enable Aluminium Bahrain (ALBA) to produce 50,000 metric tons of aluminium a year in the smelter built by British Smelter Constructions (George Wimpey, Asarif and John Brown Engineering).

New rolling stock was shipped in August which will improve by about 25 per cent the carrying capacity of the ropeway feeding raw materials to the smelter, the first in the Arabian Gulf.

Gas power

The ropeway is a vital component in the £54m. project, to create new industries in Bahrain using oil revenue and to make use of the enormous surplus of gas power available. It forms the link between the smelter and the area reclaimed from the sea by George Wimpey, where the loading station is sited. The island can store nearly 50,000 tons of alumina and petroleum coke required to produce aluminium or, in the despatch area, 3,000 tons of aluminium ingots.

For nearly four miles the ropeway, valued at £375,000, passes over the sea, calling for special measures to guard against corrosion.

Because of the extreme fineness of alumina and its susceptibility to moisture and leakage, special buckets were designed, each holding 30 cubic feet, with rubber-sealed filling lids and discharging doors at the bottom.

Petroleum coke is carried in the same buckets and the finished aluminium is transported back to the island jetty on tray carriers each taking a one-ton bundle. One tray is interposed between four bucket conveyors.

The whole system is operated by a 140-h.p. slip-ring motor at an angle drive station driving the main sheaves through epur rings and pinions.

By the addition of the new rolling stock the BRECO ropeway will enable the smelter ultimately to reach a throughput of 120,000 tons of aluminium a year.

BRITISH LEYLAND IN ISRAEL

Autocars faces demand to call in the Receiver

BY OUR OWN CORRESPONDENT

WITH complete deadlock in the negotiations between British Leyland Motor Corporation and the Israeli Government, it is likely that the local creditors of Autocars, in which Leyland is a 20 per cent partner, will tomorrow apply to the court for the appointment of an Official Receiver to operate the company's three factories.

Following the financial difficulties in which Autocars found itself, negotiations started some weeks ago to put in additional cash. The local bank which is the main creditor was ready to tide the company over by providing Autocars with the equivalent of £750,000 in additional credits on condition that British Leyland also supplied between £300,000 and £500,000, partly in the form of investment in equity, and assumed financial and management responsibility for the company.

The proposal was countered by BLMC with the demand that the Israeli Government should permit price rises on the BLMC products now made here (bus and truck chassis, Triumph cars and Triumph engine fibre glass cars) and provide the possibility for the manufacture of the mini Minor for an annual profit of £1.2m. The company has been in the red so far but with reorganisation and new management it could break even next year on the basis of present prices.

Protection

As £1.2m. would be equivalent to 6 per cent on turnover and 25 per cent on investment, which was thought to be exaggerated, this was countered by the Israeli authorities with a proposal for price rises which, on the same basis, would yield an annual profit of £700,000.

But they refused to grant greater protection for locally produced passenger cars. The Israeli authorities stressed that this was a final proposal.

Leyland submitted counter suggestions and Mr. Jack Plane, director of Leyland International, also informed the Israeli Government that his Board of directors had decided not to increase the investment or assume financial responsibility and management of the Israeli plant. At present BLMC holds 20 per cent of Auto-

JERUSALEM, Nov. 2

car's shares and Mr. V. Shubinsky, founder of Autocars, 50 per cent. Leyland has an option on 25 per cent. on Shubinsky's holding of stock.

With the talks stalemated, the Leyland representatives left yesterday and Mr. Shubinsky is still trying to raise the necessary finance, but it is thought unlikely that this will succeed in doing so before tomorrow which is the deadline set by the local bank.

Pull-out

However, BLMC has assured the Israel Government inter-ministerial committee which conducted the negotiations that it will continue to supply kits for the assembly of trucks, buses and Triumph passenger cars here as well as spare parts for the fleet of buses now on the roads. Israel's entire bus system is equipped with Leyland vehicles and a large proportion of the trucks on the road are also Leyland, due to the monopoly status the company enjoys.

Richard Johns writes: a pull-out from Israel resulting from the financial troubles of Autocars Haifa would probably enable British Leyland eventually to start trading with the Arab world again.

The company was black-listed by the Arab boycott of Israel in the spring of 1970 because of its investment at Ashdod and Haifa. An exception was apparently made for Land Rovers ordered for military purposes.

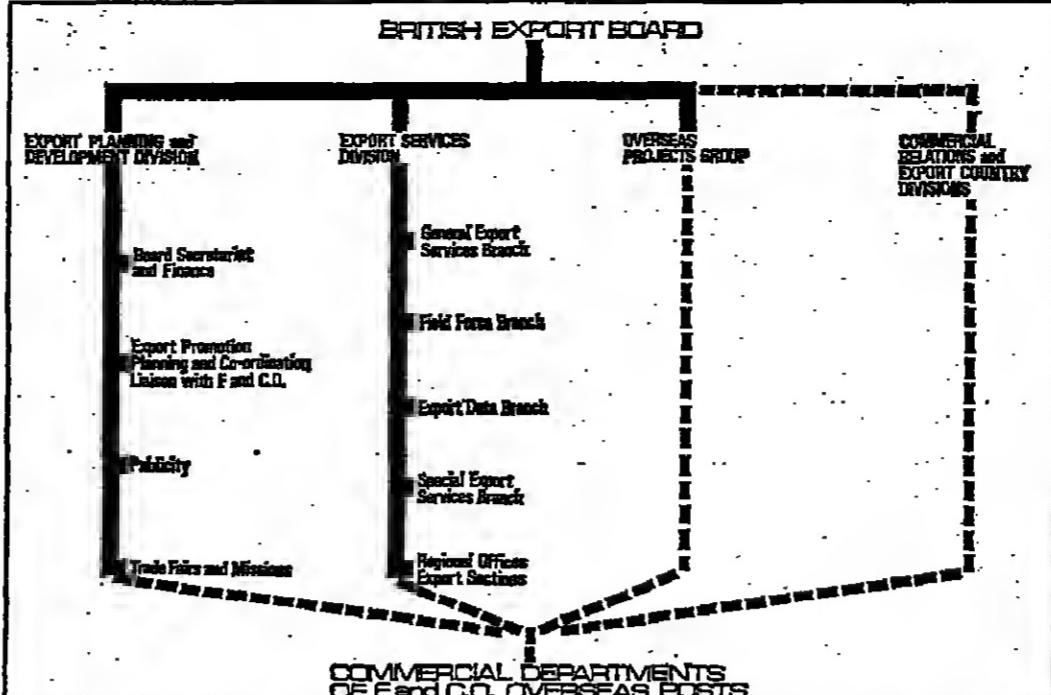
Before the merger between British Motor Holdings and Leyland early in 1968, the former's products were not on the ban. For two years British Leyland made great efforts to avoid its extension.

According to the most recent British Leyland report, sales to the Near East (a category which would include Israel and Iran) in the year ending September 1970, were worth £25m. In 1968-69 they were valued at £31m.

Snap decision

An urgent order for nearly 250,000 bars of Kit-Kat weighing about 10 tons has been received by Rowntree Mackintosh in York to meet a school meals contract in Abu Dhabi. Instructions left in York on Thursday and the first consignment left the factory yesterday in cases packed and labelled over the weekend.

THE SHAPE OF THE BRITISH EXPORT BOARD



This diagram of the British Export Board's activities has been released by the Department of Trade and Industry, from which the Board will inherit about 1,300 civil servants dealing with promotions. The 19-man Board, yet to be named, will include a representative of the DTI and of the Foreign and Commonwealth Office. Its business members will, like Lord Thorneycroft, be unpaid.

Choice of Lord Thorneycroft goes down well with industry

BY DAVID CURRY, EXPORTS EDITOR

THE appointment of Lord Thorneycroft as chairman of the Board which should be organised around pro-British Export Board has re-acted areas.

The Association also called on the Board to "support the co-ordination of overseas capital projects on a comprehensive basis". Companies should be brought together in groups to deal with large capital projects, the Association explained, with the Board playing a co-ordinating role.

The chairman-designate's emphasis upon encouraging the work already done by chambers of commerce and trade organisations has endeared him to them as they had spared the general fear that these activities would be sucked into a Civil Service limbo.

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At the same time many people

are puzzled that a Board which proclaims its intention to bring businessmen into the very offices of power should not follow the normal business procedure of paying its members for what Lord Thorneycroft has said will be fairly strenuous service.

The wholesale abandonment of BNEC staff (only 15 executives out of 164 will make the switch) is taken as an indication that the Government is unlikely to persist with the organisation by area of export activity. The chairman of the BNEC area Boards are being consulted by the Export Board, but it seems that this will be about little more than the passing on of know-how.

BUSINESS IN BRIEF

Peter Brotherhood plant contracts total £1.1m.

Peter Brotherhood of Peterborough, has announced contracts totalling £1.1m. for the supply purchase was approved by Swiss of nylon spinning plant to Parliament early this year.

The contracts have been awarded by Varimex the Polish Government purchasing division

BEAMA, the British Electrical and Allied Manufacturers Association, also bestowed its accolade on Lord Thorneycroft. It gave its blessing to his belief

Delivery is to take place between 1972 and 1974. Financing of the order for air brake isolators amounting to £182,000 and operating voltages of 161kV and 115kV.

The order was placed by Comision Federal de Electricidad on behalf of the Compania de Luz y Fuerza S.A.

The company commented: "The British Embassy in Warsaw gave valuable assistance during the negotiation of this contract. Poland is in the forefront of synthetic fibre manufacturing among the Eastern European countries and plans for expansion in this field may well provide an opportunity for further business."

The Swiss and British Governments have signed an agreement for the delivery of medium-girder bridge material worth Sw.Frs. 813m. for the Swiss Army.

It is the first machine of its kind to be supplied anywhere in the world for more than 20 years and reflects the growing international demand for magnesium.

Due for delivery in September, the caster produces ingots in several different sizes at rates up to 6 tons per hour.

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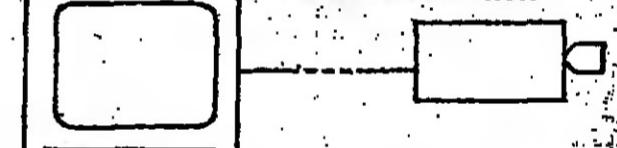
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European News

Union move to concert nickel action

By Our Own Correspondent

GENEVA, Nov. 2.—TRADE UNION delegates representing workers in the nickel industry in 12 countries have taken the first steps toward the organisation of a concerted trade union response to the multinational corporations engaged in the nickel industry. They have requested the International Metalworkers' Federation to set up a permanent non-ferrous metal section within the steel department of the IMF for the exchange of information and the co-ordination of policies.

The 40 trade union delegates attending a special conference convened by the IMF served notice on the multinational corporation that the trade unions "will view most seriously any exploitation of their employees anywhere in the world." The unions intend to develop collective bargaining co-operation to prevent the multi-national companies from achieving labour cost advantages at the expense of equitably wage and living standards throughout the industry. In a statement issued at end of the meeting it was stressed that this meant that wages and conditions should improve up to and beyond the level of the best which had been won by nickel workers anywhere—not higher standards should be depressed.

in Canada

The meeting had before it extensive research materials prepared by IMF and the United Steel Workers of America, the largest IMF affiliate in this industry. The studies showed that, despite some temporary production, the future of the nickel industry is one of continued growth and that the profitability of companies, although reduced from the exceedingly high level of recent years, still presents a much better than average return on investment. Two major strikes in the industry, in Canada in 1969, and New Caledonia in 1971, were discussed in detail and it was agreed that there should be close collaboration in similar crises in the future. The conference noted that trade union representatives of the United Metalworkers in America were prevented by the French Government authorities from entry into New Caledonia to provide technical assistance to the union there. The IMF was requested to take the necessary measures to ensure that such difficulties could be avoided in the future. A similar programme to tackle multi-national corporations was discussed in the international metalworkers' congress last week, with particular reference to the automobile industry.

French move on territorial waters

By Robert Mauthner

PARIS, Nov. 2.—THE FRENCH Government has tabled a Bill in the National Assembly proposing that French territorial waters should be extended to 12 nautical miles from their present limit of 3 miles. The official reason given for this step is that it will enable the French maritime authorities to exercise greater control over the movement of giant oil tankers. France's coastal waters, including its continental shelf, are stated to be another motive.

In cases where the distance between the French and foreign states is less than 24 nautical miles, French territorial waters could not extend beyond a median between the two, according to the terms of the Bill. The Bill specifically states that the extension of territorial waters will not affect the rights of France's Common Market partners or any other countries with which France has special lateral arrangements, such as certain to fish within the present 3-mile fishing limits.

Step ahead in Spanish steel expansion plans

BY OUR OWN CORRESPONDENT

THE SPANISH Ministry of Industry to-day accepted the offer to build and operate Spain's fourth steel plant at Sagunto on the Levante coast. The Ministry will probably grant the final permit in the very near future.

Acceptance of the AHM offer is an indication that the Government wants more foreign capital to participate in the expansion of the industrial development on the Spanish Levante coast. At present as besides creating some 12,000 new jobs and making imports of steel superfluous in the second half of this decade.

It is believed that the Government will pay the costs of enlarging the Port of Sagunto and that financing of the \$80m. investment in the projected plant will be made through Government credits and local loans. Export-Import Bank (Washington) credit for the purchase of industrial equipment in the U.S. and long-term credits granted by British, German and Japanese suppliers of machinery for the new plant.

The Sagunto plant's projected production target is 5.6m. tons of steel per year, to be reached by stages. Covering an area of about four square miles, the AHM plant is to have the first of three coal drawing mills with an annual production of 1m. tons each operational by 1975. At the same time construction work will be well advanced on three hot rolling lines for a total production of 4.5m. tons of hot coils per year. The installation of blast furnaces will run parallel and the whole programme will be closely tied to Spain's requirements for steel.

The workers struck two weeks ago to press their demands for the reinstatement of 26 employees who were fired for protesting against new night shift rules. The company called police to clear the plant of strikers on October 18, and 150 bus drivers ended two weeks of strike action which had disrupted or totally paralysed by threatened to disrupt traffic in ever since. An Auto worker, Sr. Antonio Ruiz Villalba, 33, shot and number eight among European auto manufacturers. A spokesman for SEAT said the Spanish worker who died in morning shift reported to work clasped with police in the past 18 in full and got assembly lines months.

UPI

SPAIN'S troubled labour scene moving within three hours. The workers returned to work at the end of a lockout which had been imposed on practically all of SEAT's 14,800 auto workers for illegal strike action.

This left only one major labour conflict in Spain—the strike of 12,000 coal miners in the Asturias region. They walked off their jobs a month ago to press their demands for higher wages and fringe benefits.

The resumption of work by Barcelona's auto workers and production had been either disrupted or totally paralysed by strike action which had recurring strikes and lockouts threatened to disrupt traffic in ever since. An Auto worker, Sr. Antonio Ruiz Villalba, 33, shot and number eight among European auto manufacturers. A spokesman for SEAT said the Spanish worker who died in morning shift reported to work clasped with police in the past 18 in full and got assembly lines months.

Six fall behind schedule over position on EFTA

BY REGINALD DALE, COMMON MARKET CORRESPONDENT

BRUSSELS, Nov. 2.

THE SIX Common Market countries are falling embarrassingly slow in trying to arrange a multi-lateral session at all this week—so far, no common approach to draw up a common approach to negotiations with the EFTA countries that have not applied for full membership.

After negotiations of a draft negotiating mandate, the permanent representatives to-night decided there was as yet no point in holding a multi-lateral meeting here next Monday. The nine candidate countries had also been hoping that the mandate for steel would be just about balanced with local production in 1978-79. However, by 1980 the AHM will have to start its expansion programme towards the envisaged 10-12,000 tons per year capacity target in order to meet increased Spanish demand for steel in the 1980-90 decade.

MADRID, Nov. 2.

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FINNISH POLITICS

Old uncertainties emerge

BY LANCE KEYWORTH, HELSINKI CORRESPONDENT

ON THURSDAY last week, market organisations. Why has Mr. Teuvo Aura, the Mayor of Helsinki, stepped back politically into the 1950s and early 1960s? An increasing number of observers are convinced that the underlying cause is the uncertainty resulting from the deep split in the Finnish Communist Party (FCP). An irrevocable division into two splinter parties seems likely now, one of them Mr. Taisto Simola's hard line Stalinists, and another faction

known. Five hours later he announced the formation of a caretaker Cabinet of civil servants and experts. Finland's 54 years of independence.

The repercussions have been felt very strongly in the trades unions. A good portion of the blame for the crippling seven-week long metal workers strike in February and March this year lies with the Stalinists. It was they, too, who manoeuvred the FCP out of the Government in March. And they are fighting for control of the most important and biggest industrial workers union in the elections of the metal workers union on November 9-11.

It would be serious if the Social Democrats lost their slim majority in the council of the metal workers union. Freed of Government responsibility, the Communists can use all their weapons at hand, while the Social Democrats feel constrained. The Social Democratic Party has felt uneasy about being the sole representative of the left wing in office. Hence, it backs the seven-point demand of the Central Confederation of Finnish Trades Unions (SAK) which, if the Government accepts it, will make nonsense of the "fiscal package" implemented by the Karjalainen Government in June this year to correct the alarming payments imbalance.

It is more to the point to try to discover why, after five years of relatively stable government and three years of remarkable social harmony, the will for compromise has disappeared. The spirit of reconciliation that followed the 1967 elections, before new elections in January 2-3, 1972. There are



Mr. Teuvo Aura in London last week, when, as Mayor of Helsinki, he signed a \$15m. bond loan floated on the London market.

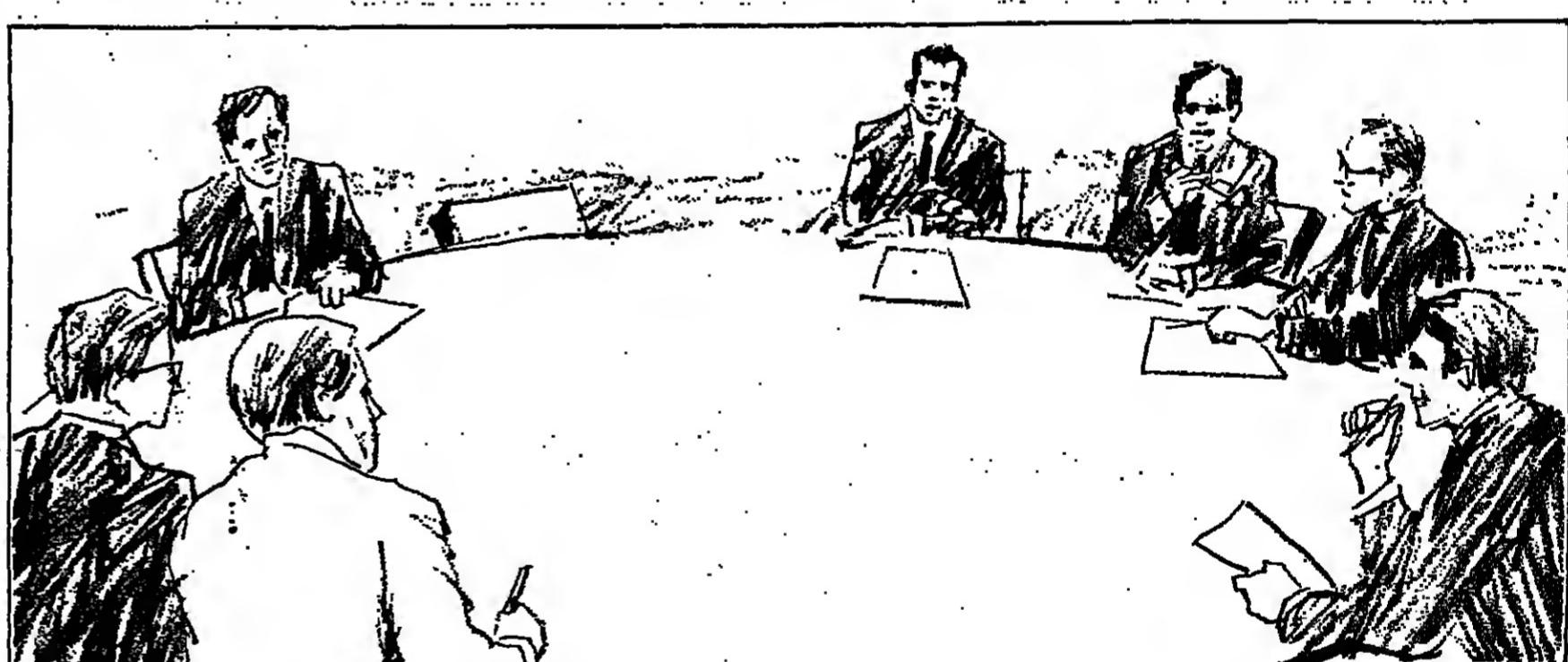
Olavi Mattila, Minister in charge of EEC negotiations, becomes Foreign Minister, and Mr. Reino Rossi, leader of the Finnish EEC delegation, is made Minister of Foreign Trade.

Although it can do no more than parliament permits, the caretaker cabinet will probably be allowed to get through vital legislation such as the 1972 budget bill. After all, individual parties can disclaim responsibility at the polls for unpopular measures. But prolongation of the fiscal package, especially the extra 15 per cent turnover tax beyond the end of the year seems unlikely.

Mores serious, though not Mr. Aura's headache, is the problem of finding a new prices and incomes policy for the period after March 1972, when the current agreement between the unions and employers runs out. The atmosphere is over-heated, and there will surely, as before, be issues that will require Government agreement which a caretaker cabinet cannot promise on behalf of its unknown successor.

It is possible that the new election in January will "clear the air," as Mr. Karjalainen said in his farewell Press conference. But that is all. The same problems will remain to be settled: prices and incomes, the trade gap, a return to stable parliamentary Government and industrial peace. After being held up to the world as an example of well-managed economic stability, Finland has embarked on a course of wage-cost inflation. "We have reached the moment of truth in the incomes policy negotiations," said Mr. Timo Lastunen, the new Managing Director of the Finns-Employers Confederation. What lies ahead promises to be the toughest employer-Government negotiations since the Finmark was devalued in 1967. They may even decide the fate of the Finmark in the next couple of years.

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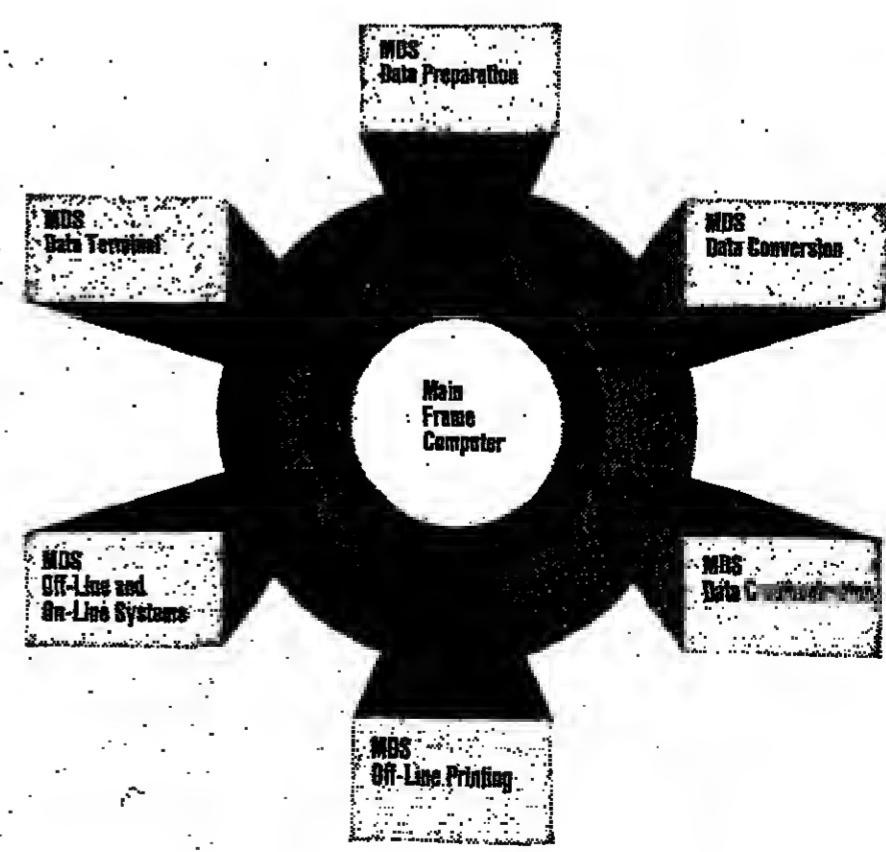


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Westinghouse makes successful French nuclear power bid

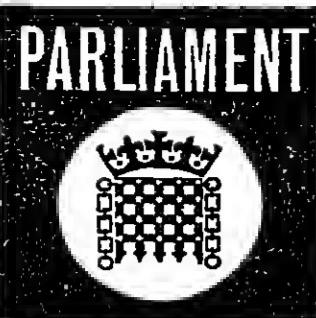
BY TED SCHOTTER

NO BIG atomic power stations, based on the pressurised water reactor design evolved over a period of years by Westinghouse, are to be built immediately in the U.S. contract in Korea is anything to go by, the three contracts and two options now in the French company—Crescent-Loire—for the two such plants.

All four will be of about the same size, the first two having an fixed at \$50 Megawatts each. These two stations will be set up at the Bugey site close to Lyon, the Rhone.

Last year, Electricité de France ordered as the first domestic and built to a design other than evolved by the Commissariat l'Energie Atomique (CEA), a very similar system. It is being built at Penesle and, like France turned away from the two new awards, will involve gas-graphite route to nuclear power, which only it and Britain's French design company had been pursuing, some two years

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Criminals must pay in cash, Lords told

DECLARING that "most of us here will not live to see the fruits of Britain's entry into Europe," Baroness Macleod said in the Lords: "But if any British Government thought only of the immediate future, then later generations would find in their history books that it lacked vision and courage." She was moving the address to reply to the Queen's Speech. Lady Macleod, widow of Mr. Ian Macleod, a magistrate for more than 16 years, then referred to crime saying: "In my view, a time must soon come when the prisoner must pay in his cash for his crimes. That will mean proper long hours of work instead of enforced idleness." The prisoner should do work for which he was paid the proper rate and all of it except a small sum should be taken away from him. His earnings should support his family and should also relieve the taxpayer of the £3m. a year now paid to victims of violent crime.

Spy incident

Lord Selsdon welcomed the reference in the speech to the Government's desire for good relations with Eastern Europe and mainland China, saying: "I believe that the recent spy incident improved rather than damaged the likelihood of better relations. It has established a baseline on which we can play."

The speech referred to the growing significance of China, and although the idea posed problems, it had to be accepted that there could be only one China.

"Australia is well placed for serving the markets of the South-East and Japan, and I hope that we may use our influence to make the Japanese realise that they would benefit themselves if they adopted a rather less near-sighted trading policy."

Opposition's view

The Opposition Leader in the Lords, Lord Shackleton, said this was a pleasant occasion "but it does not mask the fact that we are highly critical of the Government and its policies and of much of what is in the Queen's Speech."

"We shall move an amendment to condemn the appalling unemployment figures now facing the country."

Lord Shackleton also expressed his personal distaste for the proposed introduction of commercial radio.

The Leader of the House, Earl Jellicoe, referred to proposals that the Lords should have select committees perhaps like those in the Commons.

The first would be on sport and leisure. A growing number of people were rightly demanding improved facilities for their free time. There was a great deal in this area which needed to be looked at.

"I will not go into details, but there is ample to keep us fully occupied during the coming session. For example, the Local Government Bill, what I know of it, is about the size of an early version of the Old Testament."

The debate was adjourned until to-day.

EEC legislation

Mr. Wilson was cheered by Labour MPs when he claimed that they would examine it clause by clause, line by line, night after hour, day by day, now after night.

He said the Opposition had made clear to him that they wanted to "break up" the election commitments, the constitutional propriety of acting to force this decision through without now seeking the full-hearted consent of the British people in a general election.

Mr. Wilson said he had to warn the Government about any idea they might have to strengthen the proposed Common Market legislation into simple, broad, enabling clauses with the

Heath sees first signs of economic success

BY JUSTIN LONG, PARLIAMENTARY CORRESPONDENT

In the first clashes of the new Parliamentary session, Mr. Edward Heath yesterday confidently asserted to the Commons that the "next few months will give us an opportunity to strengthen the forces which are now moving towards stability."

Brushing aside warnings by Mr. Harold Wilson of day and night party battles over the Common Market legislation and Opposition condemnation of the Government's economic policies, Mr. Heath declared that the first signs of success for those policies were now visible.

With the Opposition plainly determined to make unemployment a crucial issue, the Prime Minister accepted with belligerence the challenges of the Opposition Leader on the

opening day of six days of debate on the Queen's Speech. Labour MPs loudly proclaimed their disbelief, were told that the first indications were to be seen of a revival in industrial investment, of more moderate wage settlements, and of the upward trend in exports.

Warnings

Mr. Heath also gave further expression to the hints already dropped that the Government is now studying alternative ways of providing incentives to industries in the regions of high unemployment.

Tory cheer defied the warnings of Mr. Wilson that the Government was determined to put at risk its whole legislative programme for the sake of getting Britain into

the Common Market on "wholly damaging terms." That programme would be at risk, Mr. Wilson emphasised, if the Government had any idea of streamlining the proposed Common Market Bills into simple enabling clauses.

Any such attempt at legislating "at a stroke" would be seen by the British people as a betrayal of hard-won constitutional rights — and it would reveal what Mr. Heath now knew, that he could not get through with the votes of Conservative MPs alone.

What were Mr. Heath's intentions for the Market Bills? Would there be one or more major Bills? On these points, the Prime Minister was not prepared to be explicit.

Wilson hits at unemployment

MR. WILSON said the Queen's Speech, drafted by the Prime Minister, was complacent, and where it was specific, it was wrong-headed and wrongly directed.

"It is complacent in that it entirely fails to measure up to the terrible situation exemplified by the intolerable and grimly growing level of unemployment and the failure to grapple with the unacceptable degree of price inflation."

Both of these problems were a direct consequence of the Government's policies, said Mr. Wilson.

He said that both of these problems were also the subject of Conservative election promises not only to bring about immediate action but also immediate results.

He said the speech was obnoxious because the Government, which 17 months ago laid claim to infallible omniscience in how to deal with unemployment and inflation, now regarded entry to the Common Market on "wholly damaging terms" as an escape from reality and as the only means of solving our problems.

"They are clearly determined to put at risk their whole legislative programme to achieve this and thereby deny to the House any hope of immediate and relevant action for dealing with the nation's problems."

"Where proposals are made, they are wrongly directed, divisive and designed to aggravate the problems, especially the social inequalities which are the hallmark of this Government."

Claiming that the Government's social measures would be affected by the pressure of giving adequate Parliamentary examination to the consequential and controversial Common Market legislation, Mr. Wilson declared: "This will provide us with an additional incentive to do all my hon. friends to do their Parliamentary duty to submit the Market legislation to a thorough and unrelentingly constructive examination."

EEC legislation

Mr. Wilson was cheered by Labour MPs when he claimed that they would examine it clause by clause, line by line, night after hour, day by day, now after night.

He said the Opposition had made clear to him that they wanted to "break up" the election commitments, the constitutional propriety of acting to force this decision through without now seeking the full-hearted consent of the British people in a general election.

Mr. Wilson said he had to warn the Government about any idea they might have to strengthen the proposed Common Market legislation into simple, broad, enabling clauses with the

purpose of "indecently" rushing through Parliament measures which Mr. Heath now knew he could not hope to get through on the votes of Conservative MPs alone.

Mr. Wilson said: "This would be a conspiracy against the whole British people, compounding the arrogant refusal to submit the issue of principle to the judgment of the British people."

Mr. Wilson said that if the House were to be asked to legislate "at a stroke" to change the whole tapestry of our system of law, it would be a betrayal and centuries of the rule of law and of hard-won constitutional rights which it was the Prime Minister's first duty to safeguard and defend.

"I must therefore ask the Prime Minister for a clear understanding to day that all the legislation surrounding entry in the course of preparation will be submitted to this House for the sovereign decision of this House."

Rhodesia talks

On Rhodesia, Mr. Wilson said: "There have been suggestions that the Government will announce this week Ministerial discussions with the illegal regime in Salisbury."

"I hope the Prime Minister will confirm that there will not be a precipitate rush to enter into talks if by so doing there is the remotest danger of betraying the Five Principles."

Mr. Wilson claimed that the honouring of the first principle and dealing with the principle and intention of unimpeded progress to majority rule being maintained and guaranteed, was in "real danger".

This would be "meaningless" if the time scale was measured "not in years, but aeons".

On the fourth principle, requiring progress towards ending racial discrimination, Mr. Wilson said: "The provision to reverse the trend of nearly half a century."

Owing to the policies of the Prime Minister, he will have to fight for every day of Parliament this time of this new session," he said.

Housing policies

Mr. Wilson claimed the Government's housing proposals were "the most reactionary of this generation."

"They would reverse the trend of nearly half a century."

Owing to the policies of the Opposition would table an amendment to the Queen's Speech on unemployment. There was now 350,000 more people unemployed that at the time Mr. Heath pledged to reduce unemployment at a stroke.

There was loud Labour laughter when Mr. Wilson remarked at Mr. Maudling and remarked:

"I would look forward with sympathy and compassion to seeing the Home Secretary having all his unbound gavel-like energy and resilience to the task of justifying free and unimpeded entry into Britain for the German or Dutch immigrants while driving it to the Australian or Canadian."

Mr. Wilson then turned to the unremitting, unchanging tragedy of Northern Ireland.

This was a tragedy most MPs experienced only on the radio news broadcasts.

He referred to the now

concerned, the first signs of theomic foundation and would last

If costs were controlled, there was good reason to look forward to a revival of private industrial investment.

There were also signs of success in reversing the high and rising rate of wage increases which the Government had inherited. Jabbing his finger at Mr. Wilson and the Opposition, he acknowledged progress is being done.

When Liberal leader, Mr. Jeremy Thorpe, asked why inflation was being contained and demand was falling, he said there were signs of improvement. "The next few months will give us the opportunity of strengthening the forces which are now moving for stability."

Output forecasts

The Government proposed to radically recast the legislation on monopolies, mergers and restrictive practices and the institutions which administered them.

The Government wanted a greater independence, openness and consistency in the initiatives of inquiries and the end of discrimination between private and public enterprise and between manufacturing and service industries.

The legislation should be framed so that it would promote competition and safeguard the consumer's interests.

He said the Chancellor had forecast that output would grow by 4 per cent and 4.5 per cent between the first half of 1971 and the first half of 1972. The Government's information confirmed this forecast.

The volume of consumer expenditure was up and as far as private industrial investment was jobs provided had a sound econ-

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forecast that output would grow by 4 per cent and 4.5 per cent between the first half of 1971 and the first half of 1972. The Government's information confirmed this forecast.

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cerned, the first signs of theomic foundation and would last

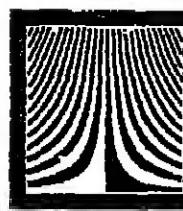
if costs were controlled, there was good reason to look forward to a revival of private industrial investment.

There were also signs of success in reversing the high and rising rate of wage increases which the Government had inherited. Jabbing his finger at Mr. Wilson and the Opposition, he acknowledged progress is being done.

When Liberal leader, Mr. Jeremy Thorpe, asked why inflation was being contained and demand was falling, he said there were signs of improvement. "The next few months will give us the opportunity of strengthening the forces which are now moving for stability."

Output forecasts

The Government proposed to radically recast the legislation on monopolies, mergers and restrictive practices and the institutions which administered them.



The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

• ELECTRONICS

A bright spot in radar

PRODUCTION of radar equipment showed the most marked gains in the first half of the current year according to the latest figures on domestic performance made available through the statistical section of the Department of Trade and Industry. Nucleonic instruments and control equipment for industry were the runners up, though of course the former sector accounts for a far smaller turnover than either of the other two.

For the first half of the year, total output of electronic capital equipment rose to £336.6m. from £320.7m. a year earlier, an advance of about 5 per cent over the period. Computers, by far the largest section in the group, were only up 1 per cent, up at £95.1m. worth of equipment for the home and export markets, while radar was 28 per cent up at £38.2m. and control equipment 22 per cent up at £4.3m.

Total export deliveries for the first six months dropped back to £112m. from £117m. and the second quarter total was the lowest since the fourth quarter of 1969.

Export orders on hand at the end of the period were down from the mid-1970 all-time peak

by ten per cent, but some with disc or tape systems heavily outweighed those of punched card computers. They totalled £10m. compared with £2m. for arrivals of punched card computers were £9.8m. but those of punched card computers were £16.4m.

The January/September figures were about in line with what could have been extrapolated from the earlier returns. They indicate that by the end of the year, arrivals of peripherals and computer parts could be as much as £75m. and more, unchanged from the previous year in spite of worse trading conditions.

Buffer memories

DESIGNED for use in data communications, data logging, automatic control systems, medical electronics and in instrumentation, a range of buffer memory units has just been put on the market by Enquiry Systems of Kilmarnock, Wokingham, Berkshire.

The units are DTL/TTL compatible and there are four models

available ranging from 2048 bits storage capacity. Models can be paralleled in 4096 bit modules.

Facilities offered by the memories include simultaneous read/write, serial parallel conversion, synchronous or asynchronous operation and automatic addressing.

Medium scale integration is employed in the circuits together with metal oxide-silicon techniques and tri-state logic.

Five amp rectifier

A RECTIFIER module delivering up to 5A is available from ITC Components Group Europe, Edinburgh Way, Harlow, Essex.

Each unit contains a series chain of five silicon avalanche diodes, individually shunted by voltage equalising capacitors and mounted on a high-alumina ceramic heat sink. The modules are rated at 5 kV overall, with additional means of HF bypass for both transient handling and voltage sharing conditions.

The minimum forward to reverse current ratio at the full rated output is 20,000 to one and the peak input voltage is 4 kV.

The forward voltage is 6.0 V maximum and ambient temperature operating range is minus 10 deg. C to 65 deg. C.

• PRODUCTS

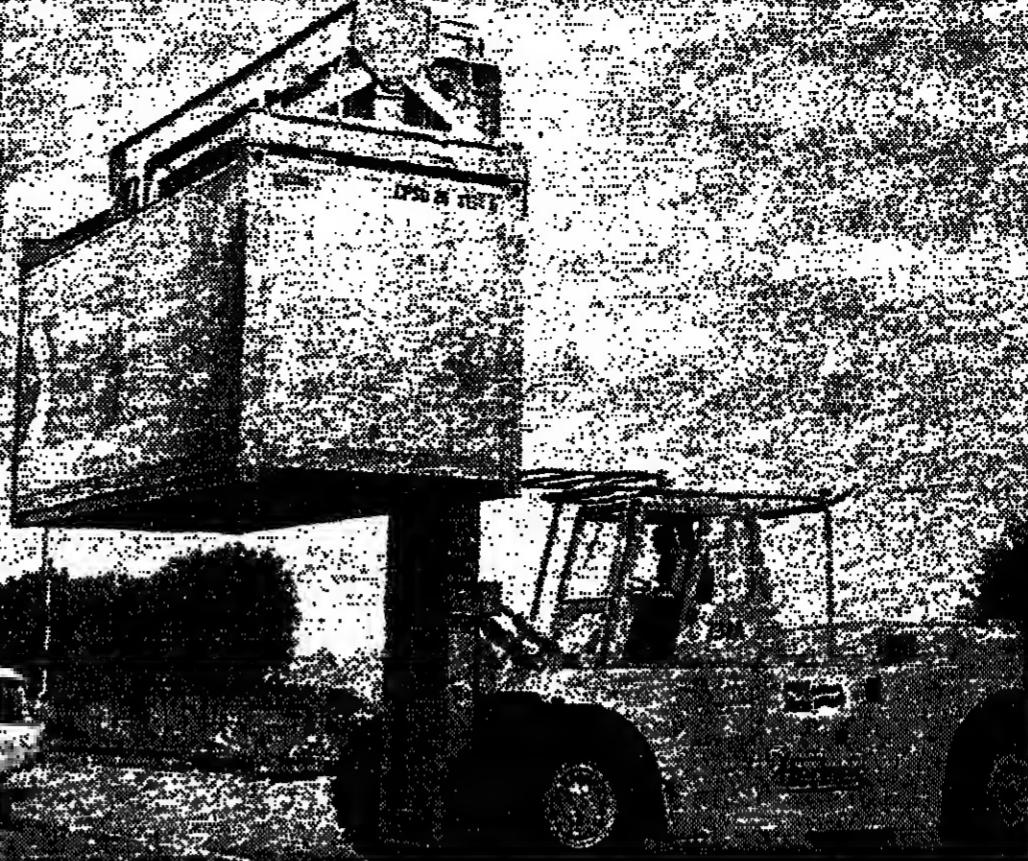
Improved mains plug

THERE are two features of many types of existing mains plugs that are potential safety hazards—it is possible to thrust the metallic objects between the back of the plug and the face of the socket, making contact with one of the live pins, and it is frequently not difficult to pull the whole cord out of the plug.

MK Electric of Shuherry Road, Edmonton, London, N9 OPB, has this week introduced a new design of plug that overcomes these problems and offers one or two other advantages as well.

Called the MK Safety Plug, it has live pins that are clad with insulation over half the protruding length, so that if the plug is accidentally pulled from the socket only the insulation is exposed.

The automatic cord grip se-



A new top lift unit, specifically designed for container handling, is at work at Tilbury for the Port of London Authority. Other units are in service in Belgium and Denmark. The latest fork-lift truck attachment in the range produced and marketed by Motor Rail, of Bedford, the Tilbury unit is mounted on a Henley Hermes 68HC truck. Designed by Mechanisation Products, of Hitchin (Herts), it can be mounted on to a front-load or side-load truck, and one-man operation is achieved by using optional features.

A modular system provides for a speedy interchange of 20-foot, 30-foot or 40-foot

main beams and the attachment can handle

laden containers up to 25 tons. Design features include articulating end beams and fully floating twistlocks with fail-safe interlock, ensuring that badly distorted containers can be picked up safely from uneven ground. None of the twistlocks will operate unless the attachment is nested on to the container correctly for stacking or pick up. Hydraulic movements include side shift and slew, and, in the case of side-leader application, outreach can be fitted to enable containers to be unloaded easily from railway wagons. In its basic form the unit costs £2,452.

PETER CARTWRIGHT

• AGRICULTURE

Crawlers from Fiat

SHOWN for the first time in the U.K. at the Royal Smithfield Show are two crawlers from Fiat Tractors, 35 Berkely Square, London W1X 8EE.

The 100C is powered by a six-cylinder 7412 cc direct injection diesel. Electrical equipment includes a three phase self-rectifying 24V 32 A alternator and two high capacity batteries in series (used for starting). A dual plate, oil bath, oil cooled engine clutch transmits power to a 5 forward, 1 reverse speed gearbox.

Steering clutches are of the dry multiple-disc type, hydraulically boosted and controlled by hand levers. Each clutch assembly, comprising 11 driven plates with sintered metal features, is removable as a unit. The 80C is powered by a four-self-energising, contracting band cylinder 5401 cc diesel. A dry brakes are pedal controlled, and each can be removed indepen-

dently of the corresponding clutch pack.

Double reduction final drive is employed to reduce load and stress on the power train. The box section track frame is built from rolled C-beams. There are six track rollers (of manganese steel) and two carrier rollers on each side. Rollers and idlers are life-time lubricated and protected with metal-to-metal floating seals. Hydraulic track adjusters are standard equipment.

Maximum drawbar pull is 20,537 lbs, track area in contact with the ground is 2,960 sq in, and ground pressure is 5.16 psi with a total operating weight of 15,400 lbs. Maximum forward speed is 5.51 mph. The 80C is powered by a four-self-energising, contracting band cylinder 5401 cc diesel. A dry

transmission, etc., is similar to the 100C. Maximum drawbar pull is 17,490 lbs (track slip is the limiting factor); track area in contact with the ground is 2,512 sq in with standard 17.7 in shoes and 3,350 sq in with optional 23.4 in shoes, while ground pressure is 5.5 and 4.2 psi respectively. Total operating weight is 13,850 lbs, and maximum forward speed is 5.0 mph.

A 3 point linkage is offered as optional equipment on both models. This has been designed in the U.K. to meet the particular requirements of the British market. The operator has finger tip control (using only three levers) of heavy-duty mounted implements. The system will accommodate all 3 point linkage andpto equipment. The combination of fully floating main lift rams and 30 degree lateral slewing means that erratic movements will be absorbed by the system without affecting the work.

The MK Safety Plug, it has live pins that are clad with insulation over half the protruding length, so that if the plug is accidentally pulled from the socket only the insulation is exposed.

The automatic cord grip se-

curely locks the wire into position so that it cannot be accidentally pulled from the plug. It also effectively prevents inquisitive young fingers from pushing all the slimmest of probes through the hole at the base of the plug. An added precaution is the re-positioning of the live terminal which puts it well clear of reach of any object which manages to slip through the cord grip.

There are no screws in the cord clamp which is a press-in nylon device providing a self locking action for any size of cable.

The plug is also rather easier to wire than many existing types in that each of the three wires to the cable is cut to the same length and is connected to the terminals by a combined nut and washer. The plug pins are fixed so that they cannot fall out and the cover locking screw is also captive so that it cannot work loose or get lost.

The workpiece is held on the machine by pneumatic clamps, which has only two basic hand lever controls. One activates the motor, clamps and coolant spray system simultaneously and by varying movement of the lever forwards or sideways, determines the direction of travel of the motor head. With the other the cutter is brought down to or disengaged from the workpiece.

A range of collets has been designed for the machine, increasing its versatility by the use of spiral milling cutters, operating at 12,000 r.p.m. and capable of routing slots up to 4 inches wide by 10 inches long.

A pre-cut 14-gauge metal template, can be inserted into a frame and used as a "master" from which identically shaped slots and recesses are cut.

A guide pin follows the template, the diameter of the pin being the same as the cutter.

Fitted with a continuously-rated 1 h.p. motor, the machine can produce letters, numbers, punctuation and OCR fonts and has backspace ability.

The company claims that its portability—it occupies less than a cubic foot—allows embossing at any point or stage of data capture and there is therefore no need to channel data to a central embossing station.

Spoilage is minimised by facilities for simple erasure and rectification. Quick and simple card loading, line adjustment and spacing, and formatting capabilities, allow consistent outputs, says the company, of up to 100 cards per hour.

Pumps for "difficult" liquids

HIGH-capacity diaphragm pumps, designed for the transfer or proportioning of corrosive, viscous, shear sensitive, toxic or valuable process chemicals and slurries, are available from Rowett and Co., York House, Empress Way, Wembley, Middlesex, HA9 OFF. The range comprises 19 pumps of fixed and variable stroke construction, each available with one of three different stroke rates. Capacities are up to 300 g.p.m. in 11 stepped ratings, with pressures ranging up to 400 p.s.i. in three sizes of mechanism.

Various constructions are available to meet all chemical process requirements, as the liquid beads can be in virtually all machinable alloys and plastics. Pumping temperatures up to 400 degrees F can be handled. The pumps are electrically powered, and can be supplied with or without drive. They can be fully instrumented to give automatic regulation of motor speed and stroke length modulation.

Design is such that isolation of the pumped liquid is achieved, even in the event of diaphragm failure. Should the working diaphragm fail, a guard diaphragm protects against cross contamination while the pumped liquid is relieved to waste or to an alarm system mechanism through a tapped bleed hole.

The pumps are stated to give an accuracy of ±0.5 per cent over 95 per cent of the range, with a reproducible stroke length to ±0.3 per cent.

• METALWORKING

Routing of aluminium and plastics

FREE-STANDING copy routing machines, designed to form slots and recesses in aluminium, plastics and mild steel extrusions of unlimited length, are available from Trend Industrial Equipment, Lechmere Road, London, N.W.2.

The workpiece is held on the machine by pneumatic clamps, which has only two basic hand lever controls. One activates the motor, clamps and coolant spray system simultaneously and by varying movement of the lever forwards or sideways, determines the direction of travel of the motor head. With the other the cutter is brought down to or disengaged from the workpiece.

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Leaflets on zinc alloys

FIRST in a series of leaflets intended for designers and engineers has been published by the Zinc Alloy Die Casters Association.

"Finishes for Zinc Alloy Die Castings" describes the main kinds of applied finish suitable for zinc die castings: electroplating, vacuum metallising, painting, clear lacquering, plastic coating, anodising and combinations of paints and electrodeposits.

Advice is given on the performance of the finishes, design requirements to be observed and

on preparatory treatments, including vibratory polishing before plating.

"Machining Zinc Alloy Die Castings" summarises the recommended techniques for carrying out machining operations. Zinc alloy die castings can often be cast with close enough tolerances to need no machining, but cases arise where it is necessary to use strong competing sources, such as city centre states.

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INSTITUTE OF DIRECTORS' ANNUAL CONFERENCE

AN AUDIENCE of 5,000 company directors packed London's Royal Albert Hall in capacity yesterday for the 23rd annual conference of the Institute of Directors.

Chosen by ballot from the 6,000 who wanted to attend they paid £9 a head to listen to six speakers and to receive a packed lunch which they ate remaining in their seats.

On the menu in the cardboard lunch-boxes this year was mousse de foie gras, grilled lamb cutlets, roast poussin, salad,

muscad grapes, stilton cheese and a half-bottle of rosé wine.

Some members flew in from as far away as New Zealand, South Africa and Australia for the one-day gathering.

They heard an optimistic speech from Mr. Anthony Barber, Chancellor of the Exchequer, in which he predicted a period of sustained growth at higher rates than for a good many years. But he also condemned "irresponsible" militants who were still putting wage demands that are too high.

Mr. Anthony Barber

Setting the course for faster growth

LAST Thursday's decision that a reasonable degree of progressive taxation. That those who can afford to do so, should contribute more towards the public services. That is right. But we have to beware.

"For industry and commerce it provides a great opportunity and that is the way the most forward of British management see it, and they are right. If we were to adopt a pessimistic defensive, unadventurous attitude then we would never succeed."

Mr. Barber expected "something of a rearguard action" in Parliament. But the size of last week's majority in the Commons' vote left no room for doubt that the House approved the principle.

"Of course, the legislation which will follow must be scrutinised with care, but I do not believe that the British people would now be impressed by a prolonged quibble designed artificially to hold up the implementation of that decision in principle."

The Chancellor of the Exchequer then moved not only to the country's immediate economic problems and opportunities, but also set them in the broader context of the future of the capitalist system.

"We are all capitalists here," he stated, "and in this era of amalgamations your motto, I assume, is 'Capitalists of the World, Unite! We have only our companies to lose.' The competitive free enterprise system exists to serve the public. Companies can only thrive if they provide what the customer wants and if they provide it at a price that the customer is prepared to pay."

Essential

"Competition provides the constant drive to cut costs and—subject to the ravages of inflation—to provide either better goods for the same price, or the same goods at a lower price. So the competitive capitalist system is an essential part of all we mean by personal freedom."

"It provides the means by which all can contribute to serving their fellow men and women. Of course, care must be taken not to mislead, and care is taken. It has long been recognised that the capitalist system, by no means perfect and that it was the proper function of Government not only to lay down the basic legislative framework of company and commercial law. Mr. Barber stated, but also to take action to rectify or ameliorate the imperfections, and to take account of social interests which were not fully reflected in the market place."

"One of our aims as a Government is to stimulate the competitive process to make the competitive system work better for the benefit of the public."

"Another well-recognised function of Government in a free society is to ensure that industrialists in the course of their business do not damage the environment. It is not right that goods should be produced without bearing the true full cost of production. So when my colleague Peter Walker said that the public must pay the cost of his pollution, he is in fact helping to make the capitalist system work better."

"All political parties in this country accept that there must be achieved the best return on the use of the market place."

The aim

"Selective Employment Tax has been halved. The cuts in purchase tax were the biggest for 18 years. By 1973, the discriminatory SET and purchase tax will be replaced by a Value Added Tax."

"Corporation Tax has been cut from 35 per cent. to 40 per cent. and we shall be legislating in the next Finance Bill to reform the whole system of company taxation and to remove the double taxation of dividends."

"The object of this reform is to promote a healthier capital market, and to make the capitalist system work better. If we are to

achieve the best return on the use of the market place."

Mr. Jim Slater

The efficient manager

A CHANGE in the whole structure of our business community was needed if we were to take the chance of becoming the leading influence in the EEC, Mr. Jim Slater, chairman of Slater Walker Securities, told the conference yesterday.

The Six had every prospect of becoming the fastest expanding economic power in the world, but our national resources were slender. If we were to succeed in earning our living from our talents alone we would have to be more adventurous than our international competitors.

"We need to obtain a new relationship between management and ownership. We need more youthful representation in many of our boardrooms. We need to continue with the fundamental reform of taxation. We need a more enlightened approach to industrial relations and we need to develop a positive international approach to doing business," he said.

Calling for more share option schemes for managers he said there was strong evidence managers were at their most efficient when they had some form of capital stake in the companies they were managing.

He wanted to see further steps taken to reduce the rate of direct taxation and the upper limit of surtax raised. In preference to increasing managers' salaries he would prefer more profit-sharing.

Mr. Slater called for a more

scheme directly related to increased percentage return on the capital employed under the control of the manager responsible.

The other main motivation of management is the prospect of greater responsibility and more rapid recognition and promotion for jobs well done. British industry and commerce still suffer far too much from "dead men's shoes" being the main avenue for promotion."

Average age 56

In the 150 largest quoted companies in the U.K., the average age of the directors is 56. This is far too high. Of course there is a vital role for the older and more experienced director. However, the older director's most vital task is to ensure that his Board has a weight of youthful representation. Age and youth should co-operate rather like a rudder and an engine. Too many of our companies today are all rudder and no engine.

It should be made more difficult for directors aged 70 and over to continue in office. The Companies Act should be amended so that a Special Resolution is required every year for any director to continue in office after the age of 70."

Mr. Slater called for a more

flexible system for transferring pension scheme rights so that a man would not be tied to his company by a pension.

He said he would welcome a much more positive interest and active ownership from shareholders and said that only five per cent. should have to apply for an extraordinary meeting to be called.

"We are beginning to establish in this country a network of successful business schools," said Mr. Slater. "More thought should now be given to the education of executives to assist them to become more international in their approach."

They should be able to study the most up-to-date marketing techniques employed by their international competitors."

Earlier Mr. Slater had said that throughout the world a body of opinion was emerging that criticised the retention of economic growth as one of the main objectives of society.

"I take the opposite view," he said. "Economic growth is essential to finance the vast expenditure required to better our environment and to build many more hospitals, schools and universities."

It should be made more difficult for directors aged 70 and over to continue in office. The Companies Act should be amended so that a Special Resolution is required every year for any director to continue in office after the age of 70."

Mr. Slater called for a more



Britain's Ambassador to France, Mr. Seames (left), talking over lunch to the Chancellor of the Exchequer. Tony Nathan

Mr. Christopher Soames

Where Britain's new home market lies

public sectors in a mixed economy, one—not even the now resurgent left—believed that pure socialism, the common ownership of the means of production, distribution and exchange, would automatically produce efficiency, equality, brotherly love or even "the man ran on time," Mr. Barker added.

"This was also my aim in bringing forward the new arrangements permitting greater competition between the banks. In total, the reductions in taxation announced in the past year amount to £1,400m. I believe that this will at any rate go some way to give people at all levels the incentive to work harder."

"Indeed, I am told that, if one works it out, the cuts in taxation in recent years was gradually achieving just that. The proportion of public expenditure in the national income was rising inexorably.

Wherever one went in the country, people were making the same point: that taxes were so high, that it just did not seem worth working."

"As far as the timing of the reform of taxation is concerned, I can summarise the position in this way.

"By April 1973, all the administrative arrangements will have been completed, the new system of corporation tax will be on the Statute Book, the new system of unified income-tax will become operative, and surcharge tax will be introduced and a Value Added Tax will become operative."

"Young people wondered if it was worth struggling to get extra qualifications. And for the businessman it sometimes seemed almost more sensible to concentrate on minimising the tax burden than on maximising the firm's efficiency. And the result was a sequence that became all too familiar and depressing. Higher taxation. And so less effort, less savings, more inflation, in turn to still higher taxation, and to still more sluggish production."

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"It is not part of my purpose to do anything to get extra qualifications. And for the businessman it sometimes seemed almost

£15m. electronic exchange for P.O.

BY DAVID FISHLOCK, SCIENCE EDITOR

THE FIRST order, worth £15m., for a new generation of switching equipment, has been placed by the Post Office. It is the biggest single contract for electronic exchange equipment yet given by the P.O.

The system, known as Txe 4, is an electronic method of switching, designed to replace the electro-mechanical Strowger system that now forms the backbone of the British telecommunications network.

Key reasons

The system, a joint development of the P.O. and the telecommunications industry, is a replacement for large local exchanges, of up to 40,000 lines. Standard Telephones has received that first order, to complete the development and supply 15 of the all-electronic exchanges with the first destined for London early in 1975.

Choice of the Txe 4 is the first decision of a longer assessment that has continued for two years past; almost since the P.O. became a corporation.

By its choice of an analogue system of switching, for this central role in telecommunications, the P.O. will disappoint those who hoped it might select a more advanced digital system, designed around a computer.

"We could be criticised for being relatively conventional," Mr. Edward Fennessy, managing director of P.O. Telecommunications, told me. "But it is very secure, and it offers us the scope we need for our new services."

Mr. Fennessy gave three key ser-

vice 65 local exchanges,

Building upsurge is widespread

By Michael Cassell

ALTHOUGH THERE were no signs that the economy was about to take an upward turn, there were no grounds for euphoria in the West Midlands, Sir John Partridge, president of the Confederation of British Industry.

The latest trade inquiry by the National Federation of Building Trades Employers showed that, it has become evident in recent months, is becoming more widespread with larger numbers of companies expecting next year to be better than this.

The quarterly review, undertaken at the beginning of October, showed that contractors' orders had continued to show improvement at that time.

A more advanced system would have required a further three years, and the cost would have been higher, said Sir John. A second, more stored away, control, was expected for new trunk exchanges, coming into service around 1977-78.

The P.T.O. expects in place a development contract with industry in about a year's time for the digital trunks exchange.

Although Standard Telephones has played a key part in the development of the Txe 4 system, the P.O. retains the right to call out to tender for further orders.

It was the first time, said Mr. Fennessy, that the P.O. had been able to buy a new technology competitively.

The P.O. expects to spend about £125m. a year on new switching equipment for the next five years, of which about £70m. is currently being spent on Strowger equipment.

Mr. Fennessy gave three key ser-

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Opportunity exists to head up the group litigation department in the short/medium term—particularly interesting commercial environment.

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SOLICITOR £3,000 to circa £4,000

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This vacancy is open to qualified male or female solicitors aged 24-32, with a minimum of two years' post qualification experience gained in a private or commercial firm of solicitors within the general or litigation spheres. (Outstanding candidates with less but relevant experience will also be considered.) The successful candidate will report to the Group Solicitor, and responsibility in this very important and central department of the company's total operations, will be to liaise with and advise the company's Directors and Heads of Departments on a variety of legal matters, such as the method and execution of particular commercial transactions including those with a foreign element, industrial relations, etc. A full continuation training will be given. Candidates must be adaptable, practical and have the ability to stand by their own judgment. Initial salary negotiable £3,000 to circa £4,000; non contributory pension; assistance with removal expenses if necessary; special mortgage arrangements available after three years' service. Applications in strict confidence, under reference S3162/FT, to the Managing Director.

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This vacancy is caused by promotion and calls for candidates aged 23-28 with a minimum of one year's practical research experience in the Engineering field, gained either with a Merchant Bank or Stockbrokers. Candidates within the age group with experience in investigation work gained solely in the engineering environment will be considered. Responsibility will be to the Head of Research, for conducting research into Engineering Companies involving visiting organisations, processing information from Stockbrokers, writing conclusive reports and advising Investment Managers. Clear prospects exist to advance to Investment Manager in the short term—or to a Far East or U.S.A. posting with scope for increased responsibilities. Salary negotiable plus non contributory pension scheme, free life assurance, free BUPA and assistance with removal expenses if necessary.

PLEASE ADDRESS REPLIES IN STRICT CONFIDENCE, UNDER REFERENCE 1A7034/FT, TO P. J. MANSER, ESQ.,
ROBERT FLEMING & CO. LTD., 8, CROSBY SQUARE, LONDON, E.C.3.

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One of the world's largest insurance brokers is seeking a Marine Manager to lead its operation in South Africa. A detailed knowledge of freight and cargo combined with the will to succeed in a highly competitive market are essential. Ideally this executive should be in his early 30s. Salary and fringe benefits are generous and future prospects are excellent.

Please write giving brief career details, quoting reference 745 FT/FT

**Robert Lee
& Partners**

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He will be responsible for the sale of unit-linked assurances through the company's existing operation and by the development and control of a separate sales force geared to these new products. He will also co-ordinate marketing policy and control its implementation. He will report directly to the Chief Executive. His background will incorporate successful sales and sales management experience in a direct selling organisation in the field of unit-linked assurances. His personal qualities will fit him for further progression in company management. Starting salary negotiable but will not be less than £5,000 p.a. Location—Central London.

Please write, indicating how you meet the above requirements and quoting ref. 1049KH/FT to Philip Smith

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COMPANY NOTICES

THE CONSOLIDATED DIAMOND MINES OF SOUTH WEST AFRICA LIMITED
Incorporated 1907
of South African origin

NOTICE TO HOLDERS OF SHARE CERTIFICATES BEARING NO. 67.

With effect from 20 October 1971, the declaration of dividend mentioned in the notice of dividend dated 20 October 1971, is published for the guidance of holders of share warrants to bearer.

The dividend per share, which was declared in South African currency, South Africa, non-resident shareholders tax at 10% will be paid in United Kingdom currency to South African non-resident shareholders, tax at 10% will be deducted from the dividend payable. In respect of all share warrants leaving a net dividend of 10.5 cents per share, the dividend on bearer shares will be paid on application for payment of dividends on or before 20 October 1971, the dividend will unless the depositary so directs, be paid in United Kingdom currency to the holder of record in the Republic of South Africa, to be remitted to the depositary, or to the Receiver General, through the authorized agent, John Barnes, at the then prevailing rate of exchange, or in United Kingdom currency, retaining therefrom what will be paid to the depositary.

Coupons must be left four clear days for examination and may be presented any working day between the hours of 9 a.m. and 4 p.m. and the hours of 10 a.m. and 2 p.m. on the day before the dividend date, and will be deducted from coupons paid in United Kingdom currency at the London Bearer Receiver's Office until 20 October 1971, the dividend will unless the depositary so directs, be paid in United Kingdom currency to the holder of record in the Republic of South Africa, to be remitted to the depositary, or to the Receiver General, through the authorized agent, John Barnes, at the then prevailing rate of exchange, or in United Kingdom currency, retaining therefrom what will be paid to the depositary.

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...Executive's World

EDITED BY
DAVID PALMER

CONGLOMERATES

A poisoned dart from Congress

BY GUY de JONQUIERES

THE discussion of Leif H. Olsen, president of LITTON INDUSTRIES, in Congress has excited investor interest to such authority (for example ITT) that people in the industry are looking for a pitch as the American conglomerates in their heyday during the late 1960s. Obscure companies grew over-night into major forces in the economy by undertaking massive acquisition programmes, sometimes absorbing businesses far larger than themselves. On the men who built up these colossi, Wall Street conferred an almost divine status. The universal faith in their omnipotence was reflected in price/earnings ratios which streaked into the stratosphere.

The period of infatuation ended sharply when the Dow-Jones index started declining in 1969, accelerating into a nosedive in the first half of 1970. The fall in the market deprived the conglomerates of their extraordinarily high stock prices (and the promise of even higher ones) which had been their essential lever in take-overs. Starved of growth, burdened by debt, few survived unscathed and some, like Ling-Temco-Vought, have been forced into diversification.

The dramatic collapse of the conglomerates aroused consternation not only in Wall Street, but also in Congress where an investigation of their activities was ordered, albeit somewhat belatedly, by Rep. Emmanuel Celler, Chairman of the House judiciary committee and its anti-trust sub-committee. Its findings are confined in a report by the sub-committee staff, which was able to draw on wealth of subpoenaed documents and dozens of interviews with conglomerate executives. The picture which emerges is that the natural result of the mergers through which the conglomerates prepared the market for themselves is behind the shining exteriors of the markets in which they operate. Behind the shiny exteriors, Thomas, Brinkmann, and J. Sennett, it finds dishonesty, incompetence, and inefficiency, incompetence, and corruption, and even downright illegal conduct.

The meeting was set by its stringent demands for a whole carefully-cultivated image of technological and managerial supremacy. "LITTON's Image-making has developed flamboyant into an art. Overstatement is a way of life. In the process of creating this image, LITTON has utilised all of the sophisticated accounting techniques and statistical gimmicks available. It is adept at concealing the true cost, misdirection and incomprehension. How did I get statement?"

"The Corporations examined by subcommittee report—ITT, Gulf and Western, Leasco, LTV, National

Corp., and LITTON—each featuring a bewildering variety of showpiece management technique, ranging from increased earnings for the parent



Harold S. Geneen, president of ITT.

Just how effective this technique can be is illustrated by LTV's performance in 1968. Its new acquisitions that year accounted for \$1.300m, or all increase in sales, which would otherwise have fallen by \$36.1m. Domestic acquisitions also accounted for \$34.7m, or almost 80 per cent of the total earnings increase.

To maximise earnings, the report finds that its sample corporations invariably used the most favourable accounting methods. The most popular was "pooling of interest," which offered a number of accounting advantages to the conglomerates. LTV's net income in 1968, for instance, would have been 70 per cent smaller if the more conservative "purchase" method had been used by its accountants, according to the report. The impact of these inflated earnings on their stock prices enabled the conglomerates to undertake ever larger acquisitions and to pay for them by issuing new paper and stock certificates. Leasco used its high free-earning ratio to take over Reliance Insurance, whose net income was 25 times and total assets seven times those of Leasco.

Mr. James Ling, former chairman of LTV.

Serious challenge

The conglomerates' primary interest in the financial, rather than productive potential of their acquisitions is reflected in their financial management after absorption. In most cases, the conservative debt policies of the previous management were abandoned in favour of debt ratings well above those considered safe by the "blue chips."

In the case of LTV, this policy is blamed for bringing the entire colossus to its knees. At the same time, net earnings were buoyed up by means which often deprived subsidiaries of internally-generated investment resources.

One particularly adept gimmick picked out by the Celler report



James Ling, former chairman of LTV.

game," which deceived everyone at the time.

The conglomerates' management and accounting methods might seem less questionable if they were able to point to solid achievements in raising productivity and efficiency among their subsidiaries. But when it was learned that Leasco was considering a bid for Chemical Bank, the banking community drew together and roundly condemned the challenger. Even Leasco's investment banks let it be known that they would not handle such a bid and Leasco was forced into dropping it.

Despite all the intriguing evidence turned up by the Celler inquiry, it leaves one key question unanswered. Why was no government action taken to check the conglomerates and their practices when they were so clearly in violation of accepted management and accounting principles? Some steps have since been taken to tighten up on accountability and disclosure regulations. The strong implication is that they were not taken before because the interested government agencies and the stock exchanges were, like the investors, mesmerised into believing that the conglomerate managers had truly found an advantage unless the individual's surtax rate is high; and furthermore, the advantage is partially offset by the consideration that in so far as income is left undistributed in the company, it will go to enhance the value of the shares and thus government pension.

Your Business Problems

A private investment company

BY OUR LEGAL STAFF

What are now the main pros and cons of putting one's private investments into a private investment company?

The main disadvantages are as follows:

(a) Capital gains realised on changes of investments are taxed at a higher rate. With corporation tax at 30 per cent, this difference can be large, bearing in mind that the individual may pay gains tax at considerably less than the maximum of 30 per cent.

The report also has some sharp words for corporate ethics. It suggests (without making specific charges) that several conglomerates indulged in reciprocity (you buy from me, I buy from you), might most be statutory prohibitions against it. There are numerous indications of "insider trading" in connection with takeovers and of questionable relationships between the conglomerates and their banks.

Curious ambiguity

The attitude of the banking industry towards the high-flying conglomerates is curiously ambiguous. On the one hand, such a pillar of the establishment as Chase Manhattan was deeply (the report suggests perhaps too deeply) involved in Gulf and Western's affairs and apparently an enthusiastic participant in its business ventures. But when it was learned that Leasco was considering a bid for Chemical Bank, the banking community drew together and roundly condemned the challenger. Even Leasco's investment banks let it be known that they would not handle such a bid and Leasco was forced into dropping it.

The advantages are:

(a) That a part of the company's income can be paid out as director's fees which qualify as earned income in the hands of the recipients, and assuming the fees are reasonable the amount so paid will qualify for inclusion in the company's management expenses claim, enabling it to reclaim income-tax deducted at source, from its franked investment income or reduce corporation tax liability at various levels?

For each £1,000 you receive in commutation of your pension you will lose £100 per annum.

To replace the income you will have to earn 10 per cent of your investment before tax. However, after tax, the position is as follows—

on £100 of income or £1,000 invested:

Pension income £69.88
Dividends and interest income (allowing 10 per cent return) 61.25
Building society interest 50.00

We cannot be more specific, as you have not given us details of your tax allowances.

You should, however, consider what need you may have for capital in the future and how soon you will be receiving a

value of the shares and thus government pension.

You may feel it worthwhile to reduce your occupational pension, if you feel that you may need more than your existing building society savings for you to help yourself or another member of your family, should the need for capital arise.

Power to ban dogs

In a reply on September 25 you stated that a council has power under section 22 of the Recreational Areas Act 1959 to ban dogs from recreation areas. My council as trustee of the parish recreational field is your dog. Estate duty now trying to do just that, but the commences on estates of £12,500 or more.

Valuation of a house

Just before the introduction of capital gains tax in 1965 I sold a house for £1,500 and just after it another for £1,700, the houses being identical except that the second was so situated that a garage could be built whereas in the case of the first it could not. I was charged tax on a £200 gain over the April 5, 1965, value and on my protest to the District Valuer was told that there was no right of way to either house for a vehicle. I cannot see that anybody will enforce this restriction, and I now find that the garage has in fact been built. Is there any help at this stage?

If it is physically possible to have access for a garage, then a higher valuation will be justified in the expectation that at some time a garage may be built. It is quite clear that a house which has no physical possibility of a garage will be worth less.

There is no way of appealing as such at this stage. However, if the Inspector is unable to help you may consider taking the matter up with your Member of Parliament, with a view to him raising the matter with the Parliamentary Commissioner.

No legal responsibility can be accepted by the Financial Times for the answers given in these columns. All inquiries will be answered by post as soon as possible. No charge is made for this service except in relation to investment matters.

BUSINESS BOOKS

The easy way to learn accounting

By Terry Dodsworth

The Meaning of Company Accounts by Walter Reid and David Myddleton, Gower Press, £5.25

OF ALL the subjects covered in management development programmes, accounting is probably the one in which non-specialist managers are most immediately interested. Yet management teachers have consistently found a problem in teaching accounting. First, managers have widely varying experience in using accounts, and hence different learning needs. Secondly, most of the teaching material available for non-financial managers has been developed for use in America.

The Meaning of Company Accounts aims to fill this teaching gap. It has been developed in the classroom at the London Business School over the last two years by David Myddleton and Walter Reid, and is now being used on the accounting courses on its three main programmes. In two volumes, one bound and the other loose leaf, it has much of the appearance of a programmed text, but retains concise introductions to each chapter.

Basically the idea is to provide a complete programme in volume one, with both text and examples, so that it can stand alone. Volume two—the loose leaf one—has additional material consisting mainly of problems (with answers provided separately) for those who need extra practice or revision.

Most of the material in the workbook has been extensively tested with managers on courses. The result is a package that can be used by individual managers or in company programmes requiring only minimum supervision. The price, at £6.25, seems pretty hefty, but for that you get a total of 498 pages which should leave the diligent student in a position both to understand and to work out accounting problems for himself.

Brewers win management game

A BASS Charrington team has won stage two of the Olivetti Management Competition, heating Dunlop, winner of the first stage, into second place. Two teams of individuals were placed third and fourth.

Victory carries with it a £500 prize, and the knowledge that George Sharmen, the Sandringham Park specialist who devised the game, regards it as the best contest he has seen in the three years he has organised competitions. Sandringham Park Management Centre was host to the final stage, after the first rounds were played through monthly issues of the magazine Business Administration.



PRINCE OF FINEPORTERS

Coleman & Company, Norwich and London. Shippers of fine wines since 1887.

8 good reasons for leading your company to expansion in these areas

If your company is planning expansion, a close look at the many benefits in Britain's Areas for Expansion could pay off handsomely.

These Areas consist of the Development Areas (including the Special Development Areas), the Intermediate Areas and Northern Ireland. They offer solid advantages which could make all the difference to your own company's future growth.

Firms providing new employment in the DEVELOPMENT AREAS can get these benefits. Consider how many would help you:

1 Building Grants

Grants towards the building of new factories can be as high as 45% of the building costs.

2 Tax Allowances

These include a special first-year allowance of 100% of expenditure on new immovable machinery and plant and 44% of the construction costs of industrial buildings (after deducting any grant).

3 Loans

General capital expenditure can qualify for loans at moderate rates of interest.

4 Removal Grants

Substantial contributions are available to meet some of a firm's major costs of moving into an Area.

5 Training Grants

These amount to £10 per week for each man (£7 per week for each woman) during the period of their basic training for additional jobs provided in the Area. Various forms of direct help with training are also available.

The Areas for Expansion

Get the facts from the Department of Trade & Industry

6 Regional Employment Premiums

These are payable to manufacturers at £1.50 per week for each male adult employee (75p for each female) until September 1974.

7 Advance Factories

For those unable to build their own factories, it may be possible to buy or lease a suitable ready-built Government factory—in some cases rent-free for 2 years (for 5 years in the SPECIAL DEVELOPMENT AREAS).

8 Operational Grants

Grants are available of up to 30% of eligible wage and salary costs during the first three years of operation for new incoming industry in the SPECIAL DEVELOPMENT AREAS.

In the INTERMEDIATE AREAS a more limited range of benefits is available.

There are other important benefits in all the Areas. These include plenty of room to expand in the future and some of the most attractive countryside on your doorstep.

To obtain more information on the Areas for Expansion, get in touch with us at "Industrial Expansion" at the Department of Trade and Industry.

We aim to provide industrialists with the impartial help they need in finding the right location for a successful project. Filling in the coupon is the first step towards getting all the facts. Do it now—or telephone 01-222 7877, Ext. 3333.

Post to: Industrial Expansion (TT) Department of Trade & Industry, 1 Victoria Street, London, SW1H 0ET.
Please send me literature describing the benefits available in the Areas for Expansion.
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Company.....
Nature of Business.....
Address.....
Postal Code.....



For further information, contact the Department of Trade and Industry, 1 Victoria Street, London, SW1H 0ET. Tel: 01-222 7877, Ext. 3333.

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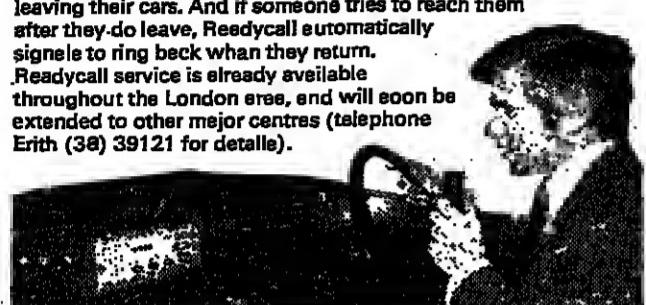
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The big battalions know Burndep

because some of the UK's largest organisations are among the largest users of Burndep products, from mobile radiotelephones to advanced test instrumentation. Organisations like the Atomic Energy Authority, the BBC, British European Airways, British Steel Corporation, Richard Costain, Dunlop, EMI, Granada Television, Ilford, Imperial Chemical Industries, John Laing, London Electricity Board, Shell and Standard Telephones and Cables, and more than 35 overseas customers.

The key executives know Burndep

because Burndep's unique new car-radiotelephone service—Reedycall—lets them keep in touch with their offices, clients and other important contacts. Through the Reedycall secretarial service, they can make appointments, book hotels and travel arrangements, and so on—without ever leaving their cars. And if someone tries to reach them after they do leave, Reedycall automatically signals to ring back when they return. Reedycall service is already available throughout the London area, and will soon be extended to other major centres (telephone Erit (38) 39121 for details).



The old-timers know Burndep

because Burndep was the nemesis on the first radios ever sold in this country in the early twenties. And the company that made them was one of the twelve founders of the original British Broadcasting Company (that later became the Corporation). In the thirties, Burndep products also included television sets and radiograms, and during the war—in addition to the military electronics that occupied most of the company's effort there were more than a million Burndep electric cookers too.

It's about time you knew Burndep too

Burndep Electronics (E.R.) Ltd, St. Fidelis Road, Erit, Kent.

BURNDEP—in Radiocommunications from the very start to state-of-the-art

The neighbours know Burndep



because so many of them and their friends have found it a happy place to work—and none more so than Burndep's engineers and technicians. These men and women, responsible for developing some of the most sophisticated radiocommunications systems in the business, like working at Burndep for many reasons, but especially because of the support they get from Burndep's young, go-ahead management team—support that becomes really tangible in areas like test equipment (plenty of advanced 'scopes, big gens and all the other bits and pieces they need to do a good job).

The rescued know Burndep

because more than 110 of them probably owe their lives to Burndep search and rescue beacons ('SARBE'). These are men whose aircraft have gone down at sea, or in remote territory, and who might not have survived were they not located quickly. Thanks to SARBE, they were located in time. SARBE is a tiny radio transmitter (or transmitter-receiver) that provides continuous transmissions, for long periods of time, on the international distress frequencies, so that rescue teams can quickly pinpoint the survivor's location. There are SARBE models for civil airliners too.



TELECOMMUNICATIONS II

Industry abreast of growing needs

By J. M. PRICE, Chairman, Telecommunications Engineering and Manufacturing Association.

During the early part of the 1960s the telecommunications industry experienced steady growth in requirements for its products. In the telephone switching field these needs were being met with Stromberg-type equipment—for although a decision had been taken some 10 years earlier to introduce electronic equipment in place of Stromberg, development of newer products had not then been completed.

In mid-1965 the Post Office advised the industry that a dramatic increase had arisen in the requirements for telephone exchange equipment. Although it was recognised that the Stromberg system had some shortcomings for modern national network requirements it was the only system available in this country that was in large-scale production.

The industry faced the challenge. Existing factories were expanded, improved manufacturing techniques were adopted and many new factories were built or acquired. In accord with Government policy many of the increased facilities were built in the North-East Scotland, Merseyside and Northern Ireland, areas which in some cases had no traditional experience of the manufacturing processes involved and which therefore placed a corresponding strain on the industry's abilities.

Deliveries to the Post Office of switching equipment doubled between 1966 and 1970 and trebled between 1964 and 1970—a very significant achievement by any standards.

Overseas markets

To assist in meeting the requirements, the industry also agreed with the Post Office that crossbar equipment—which hitherto had been manufactured only for overseas markets, should be for certain applications.

Furthermore, during the period in question the design of the first reed relay electronic exchange (TXE2), designed to meet requirements of exchanges up to 2,000 lines, had been agreed and manufacture started. This was the first electronic exchange to go into production in Europe and the first of its size range in the world. Since the first exchange was opened in December 1966, more than 100 have been handed over to the Post Office.

With these dramatic increases in growth, industry capacity can now meet the demands of



Typical Plessey 5005 Crossbar exchange equipment showing shelves at front and rear hinged down for testing.

Thus it will be appreciated that in addition to problems of growth that had to be overcome the industry had to cope with the unique introduction of major new products.

In addition radical new techniques have been developed for the more efficient use of the existing network. Stored-program control, the on-line electronic processors for setting up telephone calls is now in quantity production for the director exchange network and London's new sector switching centres.

In other areas there have also been dramatic changes: the introduction of pulse code modulation (PCM) equipment, which has multiplied by a factor of 12 the capacity of existing cable networks; the making available of high-capacity microwave systems exploiting semiconductor techniques for expansion of the national network and the introduction of vastly improved submarine cable systems for international traffic.

With these dramatic increases in growth, industry capacity can now meet the demands of

the Post Office. For the inland blem with the existing service these currently stand at which represents a loss approximately £140m. per annum and this level is expected to rise over the next five years to approximately £155m. a year.

The last few years has seen the coming to an end of the last of the bulk purchasing agreements which for so many years were the method of trading between the Post Office and the industry. The industry has collaborated with the Post Office in such a way as to ensure that there would be no disruption in supplies of equipment during the transition from the agreement to the full introduction of competitive purchase which now applies to most of the Post Office's needs for telecommunications equipment.

Future requirements

For the future the need remains for the Post Office to consult with the industry as a whole on future system requirements for the national network. To provide a means for such consultation the Advisory Group for System Definition (AGSD) was set up, composed of experts from the Post Office and industry.

The group's objective is to develop new concepts for the telecommunications networks of the future, at the same time recognising that there must be a compromise between two conflicting factors: on the one hand there is the ever-increasing pressure to change both the service provided and the techniques employed; on the other hand there is the restraint of the need for compatibility pro-

Continued on next page

Demand

(Cont'd)

Continued from previous page Post Office is hoping to encourage greater locutionousness for the Post Office to go on trying to meet demand at seem too deeply ingrained for present rental levels if the direct result will be a reduction in the profitability of the service as a whole, and thus smaller internal contribution to the financing of the heavy telecommunications capital programme.

For that would merely mean more borrowings, more investment, less profitability, less self-financing, more borrowings... and so on. In any case, the lead times on telecommunications equipment—for example, new telephone exchanges or their extensions—are such that the rate of build-up in an investment programme of this scale cannot be readily adjusted to short-term fluctuations. For this reason, too, there are grounds for trying through tariff policy to keep the growth in demand broadly in line with budget forecasts.

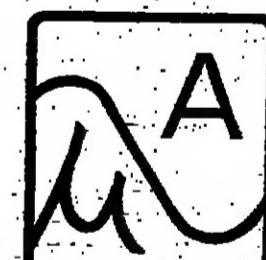
Service quality

Existing subscribers will be glad to know that broadly only about half the £2,700m. programme will go on expansion. The rest will be devoted to replacement of existing equipment and improvements in the quality of the service. As a result, the Post Office is confident of being able to eliminate congestion and interference—frustrated calls through plant undercapacity—within the next few years.

This brave commitment is, of course, vulnerable to the accuracy of the latest forecasts of traffic growth—10 per cent a year for local calls, 11 per cent a year for trunk calls, 15.5 per cent for Continental traffic, and 22.5 per cent a year for intercontinental calls. Since the number of telephones and exchange connections is expected to rise by about 9 per cent a year, these forecasts obviously assume no vast change in British telephoning habits.

With an average calling rate of less than two conversations per day per telephone (business as well as residential), Britain is one of the more "silent" telephone-using nations. Telephone usage in the U.S. and Scandinavia is twice as high. By off-peak tariff cuts and by promotion—"Someone, somewhere, is waiting for your call"—the

A SIGN OF THE TIMES



We at Microwave Associates face the future with confidence. Our strength is our capability—a capability to develop and produce some of the most advanced electronic equipment in the world. Avalanche Diode Amplifiers for example. These are solid state X-band power amplifiers which we have incorporated in our microwave links and are in use by the British Broadcasting Corporation—this is the first commercial application of this technique anywhere in the world.

Microwave Associates is a high growth, high technology Company. Our physicists and engineers are dedicated to staying at the forefront in our chosen discipline—MICROWAVES. For radar or communications—components or complete systems look to Microwave Associates.

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st Of TELECOMMUNICATIONS III

Widening the range of new services

By RON MARTIN, Marketing Director, Post Office Telecommunications

The profitability—often, indeed, the survival of a business—is critically dependent on marketing new and improved products to anticipate changing customer needs. In the Post Office telecommunications business we do not seek profits for future development, nor are we uninterested in survival, but our main driving force to innovation in products and services is a deep-rooted sense of responsibility towards our customers. Our aim is to give our customers the best communications services that we can and a choice of equipment and services wide enough to meet all reasonable needs (and even some unreasonable ones!).

The balance of innovation and quality of service is important. Every new service, every new facility, added to a public telecommunications system must work harmoniously and efficiently with the rest of the highly complex network and high standards of performance and reliability must be maintained and proved upon. This means activity in weeding-out the crack and the gimmickry and a lot of painstaking and time-consuming research, development and testing before new products or services are introduced. A short article like this cannot do justice to all that has been achieved in recent years or all that is in the pipeline for the future, but I shall describe briefly some of the more significant, recent and forthcoming developments.

Switchboard systems

The communications nerve-centre of any business is its switchboard. The very largest automatic switchboards are tailor-made by Post Office approved suppliers to individual customer requirements. In the past choice was limited to two basic systems rigidly specified by the Post Office. In recent years however we have been encouraging the development of new systems by both old and new suppliers. The effect is beginning to be felt in a significant widening of the range of choice available to customers for these fast-growing and sophisticated installations and there is more in the pipeline of rigorous evaluation and testing which precedes Post Office approval.

The vast majority of business equipped Post Office customers, however, can still have a complete all their needs for either automatic or manual systems installed with equipment rented from the Post Office. In recent years we have moreover both extended our range of basic automatic switchboards up to 100-extension capacity, and added models for the small business which dispense with a special operator, for incoming calls and route them to an ordinary telephone extension, hence they can be re-directed if necessary. The trend to automatic working, so much more efficient for internal calls, is strong but for those who prefer the personal service of a manual system we now have an attractively-styled modern range the old mahogany box on the table is cut!) and, for the business too small for a switchboard operator, the self-service keymaster range which gives users at up to ten extensions full control of their own internal and external calls. Switchboard design does not however stand still and we are ready looking to the next generation.

Switchboards need telephones and telephones, hitherto, have needed dials—but not for much longer. Already some 12,000 Post Office Keyphones are in use on extensions on the larger types of automatic switchboard, experiments using Viewphones,

which give a head-and-shoulders portrait of the person at the other end of a call, are continuing. Before the end of this decade we are likely to see this facility available on in-house installations, but a public switched service is likely to be a matter for the '80s.

Here to-day though is Confravision, a vision conference facility of greater value than simply seeing one man at the other end of the line. Confravision is

the first public inter-city conference service of its kind in the world, providing both voice and vision facilities between any two purpose-built Boardroom quality studios in Birmingham, Bristol, Glasgow, London and Manchester. Meetings between two groups of up to 10 people, with

operations required are to introduce it initial one-hour studio. The television screens sessions are currently being offered at a nominal fee of £20 only.

Data transmission is a growing "must" for the computer-oriented business. The number and type of data services grow continuously. On their way are a 2400 hits per second service on the public telephone system and 4800 hits per second service

for use on point-to-point circuits. Development of a new conference service of its kind in the world, providing both voice and vision facilities between any two purpose-built Boardroom quality studios in Birmingham, Bristol, Glasgow, London and Manchester. Meetings between two groups of up to 10 people, with

travel commitments, absence from office with consequent loss of productivity, fatigue, etc. obtained from distant premises. Alternatively it allows the gathering of people together at a short notice for a conference is flood warning, pollution, etc. in complete privacy without intrusion, because the minimal and maximum benefit. Contra-

ditional data network are well advanced. Users and manufacturers are assisting in the finalisation of required facilities.

To finish on a more human basis-of-bearing and faint-speech amplifiers for those with laryngeal troubles to devices that, working with special equipment provided by medical authorities, enable calls to be "dialed" by sucking and blowing with the mouth. New problems are constantly being presented in this field and, true to our objective, difficult or impossible—yet their solution may be great. We have a field and, true to our objective, a variety of devices to meet the needs of our engineers, to meet them.



General view of the Post Office Confravision studio, Euston Tower, London.



Industry

—(Cont'd)

Continued from previous page to the existing microwave network. This will provide valuable experience in the operation of a digital transmission system.

The Post Office are planning to formulate a design specification for a digital data exchange in 1972 and then place a development contract with the industry. After testing and evaluating a prototype, it is hoped that production orders for at least the first seven exchanges would be placed for installation in 1977.

In the transmission field developments will continue with evermore sophisticated microwave radio and cable bearer systems. The introduction of waveguides and fibre optic media is some ten years away; however, experiments have started on these new techniques which have an enormous capacity—at least 250,000 telephone calls and possibly three times as many.

It is clear then that there is going to be massive demands on the industry's technological skills. The industry has no doubt that it will meet these demands which in addition to computer traffic at present include telex and telenet signals, have the industry's technological skills. The industry has no

through without fuss. And the odds are they're made on Plessey telephones, routed through Plessey exchanges.

The Post Office Corporation in Britain and comparable authorities overseas run this global network—but industrial companies make it and install it.

Plessey is one of the largest telecommunications manufacturers in the world. It makes, for example, the telephones and the switchboards the subscriber sees—

and the far larger volume of equipment normally hidden within the world's telephone exchanges. More than this, Plessey makes systems which transmit business data, link computers, serve the exploding demand for communication in every facet of life in the 70's.

That's why Plessey is a major international force in telecommunications.



PLESSEY
TELECOMMUNICATIONS

TELECOMMUNICATIONS IV

Britain maintains strong position overseas

By ROGER WOOLNOUGH, Editor, Electronics Weekly

Britain's telecommunications industry has held a strong position in overseas markets for a long time, despite circumstances which suggest that this country might be at a disadvantage as an exporter.

Neither the telephone itself nor the Strowger automatic exchange was invented in Britain. For 50 years, under the bulk supply agreements, U.K. manufacturers had a protected home market which could have led them to be uncompetitive in the outside world. And as a nation, the U.K. has never been particularly telephone-conscious.

It is true that to-day Britain ranks third in the world in numbers of phones installed at about 14m, but it is a poor third after Japan's 23m, and the U.S.'s 115m. In terms of phones per 100 population, the U.K. comes ninth after such countries as Sweden, Switzerland, New Zealand and Australia. (The U.S. is top, with 56.38 phones per 100 population; in Washington, DC, there are more phones than people.)

Despite all this, British telecommunications manufacturers have been able to secure and maintain a strong foothold overseas. In 1970 they exported equipment worth over £35m, with deliveries to the home market being valued at around £310m.

This export success has been very largely due to the strong links with the Commonwealth. Last year deliveries to these countries, plus South Africa and the Irish Republic, totalled nearly £23m.

The high degree of compatibility between telecommunications systems in the U.K. and Commonwealth countries makes it probable that British manufacturers will be able to go on regarding these overseas territories as extensions of the home market. Formal collaboration is fostered by the Commonwealth Telecommunications Council, which took over from the Commonwealth Telecommunications Board two years ago, when it had been recognised that the increasing size and complexity of

modern telecommunications systems and the rate of growth of new services called for new consultative and joint financial arrangements.

Over the past 10 to 15 years a whole series of new ideas and fresh needs has disturbed the field of telecommunications,

which, since the British Post Office adopted Strowger switching in 1922, had been relatively placid.

It began to be recognised that electromechanical switching of the Strowger type was becoming obsolescent about 1950. In transmission, the use of pulse-code-modulation (PCM) became practical, for while this technique had been invented in Britain in the 1930s, it did not become feasible in hardware terms until the arrival of the transistor after the war.

Ground stations

Satellites created a completely new technology of long-distance communications, calling not only for launching capability and a choice to design and build the satellites themselves, but also demanding the construction and running of ground stations.

The development of the computer, and its rapid acceptance in business and industry, has led to the demand for data transmission circuits, sometimes between towns and cities, sometimes spanning oceans.

The opportunities for UK manufacturers to export depends in the first place on whether or not the British Post Office is engaged in the full range of new telecommunications activities.

British equipment manufacturers would find it extremely difficult to export systems which were not being used in the U.K., partly because the cost of development would be high, and partly because overseas customers are more likely to be convinced they are buying the right system if they can see it actually in use.

One exception to this was the Plessey group's private venture development of a crossbar exchange system, which they undertook purely for the export market in the future.

In satellite communications,

while Britain has lost her few years the globe would be circled by systems of communications satellites, and that their strength of their system on the world market, so there is no conclusive evidence about how it would have fared with no home sales to back it up.

Although U.K. users complain about the telephone service, and there may be criticisms about the speed with which new equipment is introduced, the fact is that the Post Office is using or investigating virtually the full range of telecommunications technology.

On switching, the decision to move straight from electromechanical to fully electronic exchanges was so far-reaching that many overseas telecommunications authorities and manufacturers thought it foolhardy—a judgment which, in the event, proved accurate.

The electronic exchange proved too big a single step, and the U.K. is now installing a mixture of Strowger, crossbar and electronic exchanges. The cost per line of electronic exchanges is still too big to attract business from abroad, but the chequered history of this part of British telecommunications policy could yet have a happy ending. British manufacturers have acquired an immense amount of knowledge of electronic switching, and this should pay off in overseas orders when the time is ripe.

The other important area of switching is stored program control, which exploits computer concepts and demands expertise in software as much as in hardware. In the U.S., stored program control exchanges have been installed in public service. In Britain this technique is still at the development stage, although industrial contracts have been placed.

British transmission technology ranks high in the world, and the Post Office has not been slow in exploiting this capability. Equipment for a large number of PCM transmission links has been ordered, and it is expected that substantial orders will continue to be placed before the British Post Office

this cannot be hailed as an export success; they were all ordered by either the British Post Office or Cable and Wireless. Elsewhere results have so far been disappointing. Both Australia and New Zealand, for example, have bought earth stations from Japan—so have Singapore and Malaysia. Nonetheless, British expertise in this field is well established and widely recognised.

In the future it is expected that transmission of data will far exceed that of voice. British manufacturers have not so far found it difficult to meet the demands placed on them by the Post Office. It remains to be seen whether the very high rates of transmission which have been suggested are ever really called for. If so, British manufacturers may find themselves at a disadvantage in the world market, for the U.K. attitude towards transmission speeds has been a little unadventurous.

There are now ten British time to track the first Sputnik, few people imagined that in a overhanging overhang, throughout the world, though

new manufacturers like Ericsson of Sweden, Siemens of Germany, and General Telephone and Electronics of the U.S. are sitting on the side lines waiting for the first crack to appear in the Post Office's long-standing "buy British" policy.

The effect of the Post Office shopping abroad could be reaching. If it was done on a non-reciprocal basis it could be to destroy the confidence of overseas customers in British manufacturers and make more difficult for the U.K. export. But if there was some form of reciprocal agreement, British companies could open new markets, opening up and there would be a less reliance on the Commonwealth countries as customers.

There could be some dramatic changes of direction within next few years, but the signal would not be seen immediately. The vast capital investment heavy hints that it may feel obliged to place orders with telecommunications firms—something rapid innovation, and decide which these firms have not been once taken determine the slow to register. Leading overhang for years to come.

Full range

This has little practical effect, for other British companies can only supply specialised items.

The Post Office's overhang is significant, and makes it difficult for the U.K. export. But if there was some form of reciprocal agreement, British companies could open new markets, opening up and there would be a less reliance on the Commonwealth countries as customers.

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Links with the world

By JIM HODGSON, Director, External Telecommunications, Post Office Telecommunications

At this moment you can "recognise private operating national telecommunications exchanges with 196 countries and agencies." The Post Office Corporation, set up in 1969, is the separate territories overseas, send telex messages to 144 and address telegrams to 225. The numbers are still growing. You can also telephone or send telex to 9,200 ships at sea. In some cases your call or message will go direct over any one of 28 submarine cables, 27 satellite systems and 74 radio services which link this country to the outside world. In other cases you will be routed via one or more "transit" countries. Your call or message to a ship at sea may go through any one of 12 coast radio stations.

Parent body

Communications on this scale are possible because technical standards, operational arrangements and accounting systems have been patiently worked out at international meetings of telecommunications experts. The parent body is the International Telecommunication Union (ITU) founded in 1865 and since 1947 a specialised agency of the United Nations. The ITU has 139 member "administrations," each representing a separate sovereign state. The world's telephone and telegraph communications are associate member status as given her a major role in inter-

national exchanges with the chain of submarine cables making up the Commonwealth system from Britain via Canada, New Zealand, Australia and Hong Kong to Singapore and Malaysia. This is almost certainly the busiest single international telecommunications centre in the world. (Although more telecommunications business crosses the U.S. frontiers each working day, it is divided among a number of competing companies). In addition, a British company, Cable and Wireless, provides international telecommunications services in 53 countries and separate territories overseas, some of them British dependencies—but many of them independent Commonwealth or foreign countries.

Carrying on international and maritime communications on this scale demands substantial resources, plant and a large work force. Over 13,000 operators, engineers and administrators are employed in the Post Office's External Telecommunications to COMSAT, in working Executive. All the equipment and operational arrangements for the global exchanges in London is British-designed and British-built. So work.

The very rapid growth of earth station at Goonhilly in Cornwall, and so are the submarine cables linking these in the need to achieve large-scale expansion of the international circuits particular to the peaks of the business. Nevertheless, the long-term look for the British customer is for steady expansion of services and improved reliability, and for Post Office personnel to place substantial contracts in building and equipping new facilities. In the shorter term, unfortunately, there will be occasions when too many calls are chasing too few national circuits. The peak of the business is for steady expansion of services and improved reliability, and for Post Office personnel to place substantial contracts in building and equipping new facilities. In the shorter term, unfortunately, there will be occasions when too many calls are chasing too few national circuits. 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TELECOMMUNICATIONS VI

Advances in pulse code modulation techniques

By W. J. BRAY, Director of Research, and M. B. WILLIAMS, Deputy Director, Telecommunications Developments, Post Office

Pulse code modulation digital per second. The groups of seven pulses define 128 amplitude levels, giving speech quality to the high-capacity intercity transmission systems and acceptable quality for telelinks can readily be monitored by switching exchanges that will phone.

More exacting requirements for handling not only telephone but also data, facsimile, Viewphone and international circuits, and Conference (conference tele-links carrying certain non-vision) and other telecommunication speech signals, such as multivision traffic in the 1980s and channel telephony. Here, 8-bit beyond. Already pulse code coding has been standardised modulation (PCM) techniques for general application and will have proved their worth by be used in future.

The ability to transmit many enabling existing multiplex. Besides speech, other telephones have to be met on long-distance links can readily be monitored by automatically counting any errors in the pulse rate. Thus, for the performance has deteriorated to a point affecting signal quality.

Coaxial cables

These devices are already relatively cheap, and will become cheaper as quantities needed increase. For this reason PCM digital transmission promises to be cheaper than analogue transmission.

Looking further ahead, big economies can be expected from the combination of PCM digital transmission with digital switching in exchanges. The experimental PCM digital switching system at the Express Exchange, Shepherd's Bush—designed and built by the Research Department of the Post Office—has been carrying public traffic for nearly three years, with excellent reliability.

A single circuit the size of a matchhead can almost instantaneously switch any of 24 or more telephone conversations.

Unlike their electro-mechanical counterparts, microelectronic circuits neither wear out nor need significant maintenance.

The pioneering field trial at Empress is being followed by a trial of a more advanced digital exchange developed by a British manufacturer. For the first time in several decades of exchange development, during which the real cost of switching has remained constant, the possibility now exists of achieving a substantial cost reduction.

Again, many different signals—speech, data, facsimile or Viewphone—can readily be accommodated on a common path such as a pair of wires, a coaxial cable or a waveguide, operating at 120m. bits per second, with a possibility of even higher speeds in the future.

A third advantage of the digital signal is that they can use compact, highly reliable microelectronic circuits efficiently for signal processing and switching.

The improved quality offered by PCM digital techniques is important not only for telephone speech but also for new services such as data, facsimile and Viewphone, that will be operating on a considerable scale during the 1980s.

The better quality arises from the fact that digital signals can be "re-combinations of pulses. One generated" waveform dis-

group for synchronising the moved, provided that the peaks receiving equipment, making of noise or interference only eight pulses repeated 8,000 times a second, rarely exceed half the pulse amplitude.

Each sample is represented by a group of seven on-off pulses, for example 0101101. Samples of various amplitudes are represented by different pulse patterns. One additional pulse is added in each tortion or noise completely re-

group for synchronising the moved, provided that the peaks receiving equipment, making of noise or interference only eight pulses repeated 8,000 times a second, rarely exceed half the pulse amplitude.

PCM systems. We would expect them to be used, for example, to sample and encode signals in PCM digital form. They may

signals would circulate in the network between local exchanges and the customer's premises.

One idea being explored uses a coaxial cable ring main in roadway ducts. PCM digital data communications service, which will provide the time-impractical.

sharing computers as well as the data links. This is considerably more than is being spent in Britain over the same period but most experts feel that it will be insufficient to meet demand. Japan has fallen some seven or eight years behind the U.S. in the use of time-sharing systems, mainly because of the slowness of the national service utilities such as the Coal Board, Electricity Boards and Gas Council as well as by some large corporations such as ICI, Shell-Mex and BP and some retailing organisations. It has a leading place in Europe about the rate at which Office will be able to develop its National Data Communications Service because of its lack of capital resources and appreciation of the rate at which demand would grow.

The Government resisted all offers of private capital aid in developing the system so that by the end of last year, only by a national monopoly. At Tokyo and Osaka had facilities for time-sharing networks.

NTT plans to spend almost £200m. over the next three years in establishing its national

years in establishing its national processing and transmission, but it soon became clear that this was impractical.

Private datacommunications networks are, of course, being established in possible conflict with an eventual national system. British Rail and the clearing banks are already building full national data transmission networks and they are likely to be followed soon by the large utilities such as the Coal Board, Electricity Boards and Gas Council as well as by some large corporations such as ICI, Shell-Mex and BP and some retailing organisations. It has a leading place in Europe about the rate at which Office will be able to develop its National Data Communications Service because of its lack of capital resources and appreciation of the rate at which demand would grow.

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TELECOMMUNICATIONS VII

Expanding potential in microwaves

JOHN A. SAXTON, Director, Radio and Space Research Station, Science Research Council.

Plant at Queen's University of Prague
Overall balance
and potential in
Europe, clearly with
microwaves; optical fibres
when used
through applied in an
atmosphere and space for
basic system. The open in radio communication is
based on the availability of
wavelengths and anything
such range of audio or
a unified PCM spectrum can have important
economic benefits. At present
the spectrum from long waves
to the centimetric band is
intensively used that new
developments must inevitably
lead to the expanded application of
millimetric waves, followed in
course by sub-millimetric
waves. The success of these
developments will depend both
on the production of commercially
satisfactory terminal equipment for transmission and reception, and on a thorough
knowledge of the propagation
of the carrier waves in the
circumstances in which they
are used. Equipment probably
exists that can compete with the
existing systems for millimetric wavelengths beyond this
substantial improvements. In
order to make such developments
possible, new and
doubtless occur. In the
time research in a number
countries, including the U.K.,
is steadily contributing to the
propagation information, re-
lated to the various
systems and components of optical communication
systems and of systems
living radio waveguides.

This article is mainly concerned with the problems to be
overcome on the propagation of
radio waves through the atmosphere and space.
It is clear that practical applications on
a large scale will be made in the next decade,
but it may be of interest
briefly to discuss some
measurements of optical communication
systems and of systems
living radio waveguides. These have already been experimental uses of modulated
radio waves for high-capacity
communication both by means of guided propagation along
optical fibres and by free propagation
through the atmosphere. best fibre guides so far produced
attenuate the light intensity by a factor of about 100 decibels in a distance of 1 km. Even so, an
optical system capable of operating at room temperature on suitable wave-

ANA

installation
increase
Total
in 1971 at 31
75,914 4,933

06,116 3,089

102

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territory.

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Continued on next page

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Electronics

Components

TELECOMMUNICATIONS VIII

What customers want and what they get

By ELSBETH GANGUIN

"People in this country—and less than 10s a week—£20 a year be substantiated, 1.4 per cent that "if people enquire about these services, they can have technique right . . . there is a secretarial standing by to dial many regions. If a call as with the dial method, you are still not satisfied, you can call the Meteorological Office than dialling, and "you get the number out of your memory quickly." This might appeal to the businessman who now has a northerly winds and showers, was the pleasant reply. The his calls for him. Even more futuristic: "eventually you could send signals to switch your cooker on at home," all by pushing buttons.

The P.O. has still more for the businessman. It is now running a conference service making it possible for business people to hold conferences by television—we have got the television—

about that too, and when I tried if I was told the service runs from 6 p.m. to 8 a.m. only but that tomorrow's record would be "Another Day . . .") Finally the Financial Times share index attracts callers at a rate of 1.5m. a year.

I came away convinced that customers who grumble are really quite mean! — as I walked out came the parting shot: ". . . and we reckon that 80 per cent of all telephone service affecting faults reported before 5 p.m. are cleared the same day . . . that's the best service of all . . . and the average number of faults per telephone is 0.8." I'll try to remember.

What then about the trouble we have with our telephones? Half of it is caused by congestion on the lines. That accounts for instance, for double connections. And the P.O. is putting new junctions and trunks into the network as fast as it can get the necessary line and switching equipment.

True, during the memorable strike earlier this year, the telephone and Telex services just about saved our bacon. We were less infuriated by crossed lines, wrong numbers, failures to connect, and the various other frustrations heavy users of the telephone service meet day by day. But soon afterwards we were beginning to wonder once more whether this is really the best the Post Office can do.

There are about a quarter of a million people working on the P.O.'s telecommunications side. The capital investment plan for the next five years comes to £2,700m—and the bulk of it is to go into the telephone and telex systems. Over the next 10 years telephone connections will double: "We are now in one of three homes, but will be in two of three homes—and we will do in ten years what it has taken us 90 years to do before." (The P.O. is particularly keen to sell extensions, rather than to make entirely new connections, for obvious reasons. There is that a long way towards remedy.)

Anyway, about 60 per cent of the complaints which reach the P.O. are about bills. Some of which 2.75m. are business 30m. bills are sent out a year, and, says the P.O., there are connections predicted for 1981 "many, many entries on one line—but in mostly bill—yet the complaints usually listed which the P.O. is not all too keen to perform! Like the priority telegram service, for instance, which is "completely uneconomical."

"It costs 72½p to deliver the average telegram, whereas the average revenue is 37½p," says the P.O. Then he added, however, phones. They will be "increasingly used."

"We are well ahead on data," I was assured. As for facsimile transmission, the P.O. is at present carrying out market research to see what the demand might be. At the moment, the P.O. "approves" such a service, while national service would require standardised machines. Rental of such a machine might cost from £400 a year upwards.

"But we believe this has a future," says the P.O. Then he added, however, phones. They will be "increasingly used."

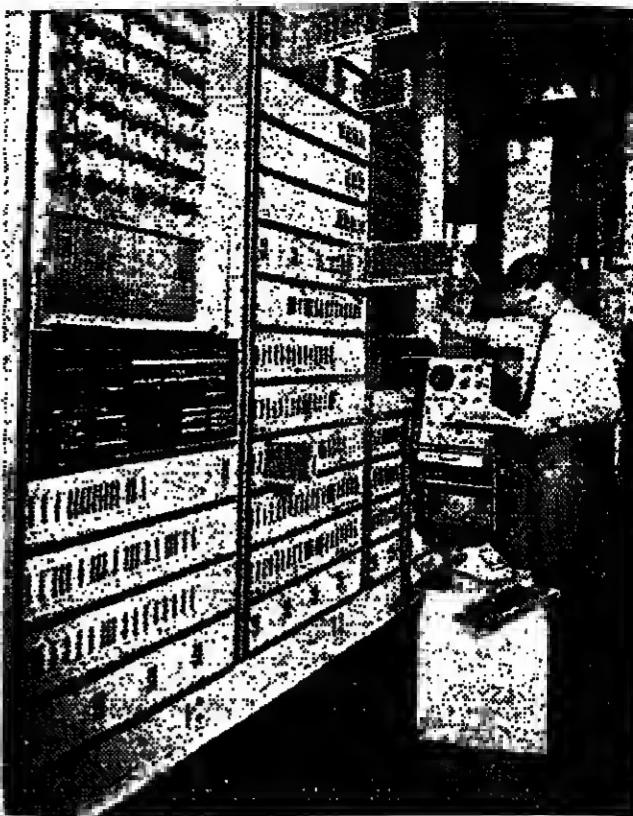
But then I switched to the German version, which was quite outset the most advanced ideas. So I was able to fill in communications to interlink

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Sophisticated stored-program control equipment in production for nearly 100 exchange centres in London and the provinces and for London's switching centres.

Research—(Cont'd)

Continued from previous page

the research centre at Martlesham with development and trial, in 1973, of the waveguide system for carrying trunk

other Headquarters departments in London.

Five years ago the Post Office began to think of a new

research centre, somewhere outside London, "though not more than about 100 miles away

because of the important interface with development in London." Martlesham was the choice, and the first research

team moved from Dollis Hill in the past year, to set up a £1.5m.

waveguide experiment on the site.

In another three years the

whole of the work of Dollis Hill

will have moved to a site with

capacity already under construction for 2,000 staff.

Inevitably, in telecommunications

research, one draws comparisons with the Bell Laboratories in the U.S.

This formidable organisation, with

several research centres, will

still be several times the size of

Martlesham. But his new

laboratory, says Bray, "will be as good as anything in the U.S.

and the best this side of the Atlantic."

He admits he has

called a number of good ideas

in laboratory design from Bell,

including a modular labora-

tory pattern that affords very

flexible use of space, and full

air-conditioning "of quite a

high grade."

Most important, perhaps, is

the intention to use from the

end of this decade.

One of Martlesham's first

and more complex



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Chit

Ulster: the next stage but one

GOVERNMENT'S present for Northern Ireland has they see and led to argue either possibilities on the list. The British support for boys to get blown up and shot would seem less ludicrous if the UN itself were not so deeply in deficit and so clearly in a state of turmoil over the admission of the Chinese Communist Government and the consequent anger of the U.S.

such circumstances, it seems to be getting more to fight it out among themselves, or that "if we leave for the months ahead is the IRA will deserve what it gets from the Protestants."

Depressing

The effect on the Army is even more peculiar. It is not easy to understand how it has come to be expected that a soldier must do his duty efficiently even though every time he moves somebody shoves a microphone in front of him, or his commanding officer, and demands an instant justification of what is going on. War is always unpleasant, and urban warfare is especially abhorrent. As conducted by the Irish Republican Army it is gruesome indeed. It is monstrous to ask British troops to fight back while television cameras peer over their shoulders—ever though the Army has camouflaged the PR opportunities thus given to it.

Thus the first change in the present policy should be to restrict the use of television in reporting the activities of the Army in Northern Ireland. This would reduce the amount of ordinary war reporting to a minimum. This is a change that certainly should be made; the same can-

not be said of the next two part of what has until recently been a bipartisan British policy. Its purpose has been to coax or, if necessary, compel the Government of Northern Ireland to introduce social and political reforms that would give the Catholics a share in the economic and administrative control of the country. But the pace of reform has been too slow; it did not prove possible until as late as last week to bring in Mr. Gerard Heavey as the sole Catholic in the Ulster Government, while in other walks of life there has been more progress on paper than in reality.

The second—to bring the troops home at once—might well lead to a great increase in the amount of bloodshed. If this happened (and there really is no telling, one way or the other) it would be the British scuttle that would be in large part to blame; this is something to have on the national conscience.

Clearly a simple continuation of this policy of pressure on the Stormont Government would not in itself be sufficient; it is and it is gaining ground inside the Labour Party—but the real dangers are too great for it to be contemplated at present.

Two further ideas both make more sense, but only if carried out together, as part of a single policy. The first is to impose direct rule from Westminster; the second is to intensify the present efforts to bring about a political settlement between the many Catholics and Protestants inside Northern Ireland as can be persuaded to be a party to it.

Bipartisan

Pressures towards such a settlement—starting with the Labour Government's efforts that led to the Downing Street Agreement of 1969 and carrying on through Mr. Heath and Mr. Maudling's latest series of conversations with those of the as if the Stormont Government protagonists who have been permanently in control has been mistaken. It would be seen

by the IRA as a victory, and the of all the people of the province. If there is direct rule re-doubled in the belief that it will in effect be replaced. The British Government's responsibility to all the people of Northern Ireland would then further victories would then lie ahead.

For these reasons any imposition of direct rule would best be met if a new political agreement were reached that in the British view provided the most reasonable possible determination than ever and safeguards (there is no such thing as a cast-iron constitutional safeguard) for the Protestant people of the North under an all-Ireland government.

Sell-out

Clearly a simple continuation of this policy of pressure on the Stormont Government would not in itself be sufficient; it is and it is gaining ground inside the Labour Party—but the real dangers are too great for it to be contemplated at present.

Yet many people, both in London and in Belfast, now believe that direct rule is inevitable, and that it had better come as soon as possible. The Rev. Ian Paisley, who claimed at the weekend that it was a short while away (a claim that the British Government has denied), may have been out in his timing; he may, however, be correct in his general conclusion.

The disadvantages should not be minimised. Direct rule would be interpreted as a recognition that half a century of behaving against the will of the Parliament of Northern Ireland. But that Parliament is no longer commanding the support

of all the people of the province. If there is direct rule re-doubled in the belief that it will in effect be replaced. The British Government's responsibility to all the people of Northern Ireland would then further victories would then lie ahead.

Ulster now: "Reunification is not a policy for to-day, but preparation for it is . . ."



Labour News

Engineering deadlock: government steps in

ROY ROGERS, LABOUR STAFF

Government has intervened that the engineering unions can expect similar treatment of their engineering industry with 40 per cent pay claim in talks later this month.

The clerical unions had asked for a £270-a-week general increase and a £450-a-week increase in minimum rates. If conceded, it would mean a minimum rate to the TUC's target figure of £20 a week.

They based their claim on the alleged disparity between the pay of white and blue collar workers in the industry and also on the increased cost of living.

"Similar rate?"

In replying to the claim yesterday, the EEF produced figures which it claimed showed that the pay of clerical and manual workers had been increasing at a "very similar rate".

On the cost of living issue, the EEF pointed out that its members have also suffered from the increased cost of living.

EEF members were in no sense prepared to accept that there should be a direct link between staff salaries and rises in the cost of living. To do so would be to perpetuate the inflation of costs and mean a further step to economic disaster, warned the employers.

In discussing new minimum rates, the employers were prepared to concede equal pay for women, although not in one step, provided there was also agreement on a definition of a minimum responsibility level to which the rate should be attached.

The executives of the unions are to consider the EEF's proposals before further negotiations and will probably meet in about a month's time.

Last-ditch meeting on oilroom row due to-day

PETER CANTWRIGHT, MIDLANDS CORRESPONDENT

COVENTRY, Nov. 2.—A last-ditch attempt to break out of the deadlock has been made by Rolls-Royce, which employs 7,000 making aircraft engines and marine and industrial derivatives. Yesterday it told more than 1,100 who had rejected its bid to accept the minimum to accept the national toolroom rate, not to report until further notice. The men picked up an extra £4 a week, but again went on strike yesterday.

The 1,100, who are engaged on work for Concord, the RB-211, the jump-jet Harrier, and other vital projects, are not meeting again until Saturday. By this time the results of any further meetings between the two sides will be known.

The union has collected £27,000 for its fighting fund and this could be used to support the Rolls-Royce members.

The car and component producers in the area, especially Chrysler, have been hard hit.

In Birmingham the five-week overtime ban strike by 120 assemblers of 1,800 type engines at the Austin-Morris plant at Longbridge continues. More than 2,500 are laid off at four plants end by the time the strikers meet again on Thursday production of some 10,000 saloons and MGB sports cars will have been lost.

most significant move to

U.K. demands change in Six fishery law

BY CHRISTOPHER LORENZ

THE BRITISH GOVERNMENT has indicated that it cannot sign the Treaty of Rome on the basis of the existing Common Market fishing policy. It is pressing for the status quo to be preserved for the present or, failing that, for the "Six," policy to be adapted before Christmas to meet the requirements of the Community of Ten.

This stepping-up of the fishery argument from the technical to the political plane emerged today as Mr. Geoffrey Rippon, Britain's Minister for Europe, had talks in Bonn with the German Foreign and Agricultural Ministers, Herr Walter Scheel and Herr Josef Erhart.

The feeling of Britain, together with Norway, that the present Community fishing policy is totally unsatisfactory has been well known for some time. Whitehall now sees it as the one main problem remaining to be solved in the EEC enlargement negotiations. Unlike previous points of discussion, it does not simply require a straight U.K.-EEC agreement, but rather a multilateral arrangement.

Mr. Rippon expressed his optimism that the enabling legislation required from the British Parliament before Britain can actually become a member of the Community would get through. Mr. Rippon expects that many of the Tories who rebelled against Mr. Heath in last Thursday's vote, will enter the Government lobby on the enabling legislation.

The British and German Ministers reportedly found themselves in almost total agreement about the necessity of getting a dialogue going between Europe and the U.S. The danger of alienating Washington has recently become one of Herr Scheel's prime preoccupations.

Mr. Knut Henningsen, Norway's Minister of Fisheries, rejected as "quite unacceptable" a reported EEC plan for Norway's coastal fisheries. The plan envisages dividing Norway's coast into two sections, where different technical arrangements would apply.

After a total of 10 years, fishermen from other EEC countries would be allowed to fish inside Norway's 12-mile limit.

In his talks with Herr Scheel, Mr. Rippon said that the future of the plant was some time and incurred increasingly serious losses.

The 20-inch pipe mill, which employs about 250 people, makes welded oil pipes for overseas markets as well as welded hollow sections for framework used in the building industry.

A world-wide overcapacity in both products and severe price competition has led to BSC's mill may soon improve and if a

decidedly will involve members of

BSC planning to shut pipe mill

BY MICHAEL CASSELL

THE British Steel Corporation is Hartlepool ten days ago when he operating far below capacity for planning to shut down a £5m. pipe mill at Hartlepool which was in jeopardy opened four years ago. Talks

with union officials about the plant's future have started, but a BSC tubes division spokesman said that unless another course of action became apparent in the three-month consultation period, the mill would shut early in 1972.

The talks follow the visit of Lord Melchett, BSC chairman, to the plant.

Over 70 people are to be made redundant at the Metal Box factory at Southwark, London. The dismissals follow a decision to stop producing certain labels for food cans and composite containers. The plant employs nearly 700 people and the redundancies will involve members of print unions.

It is thought that orders at the Corporation's nearby 44-inch pipe mill may soon improve and a

print unions

Saleroom

10,000 gns for miniature

IN A SALE at Christie's yesterday of miniatures, which totalled £43,485, one by Isaac Oliver of Thomas Johnson, and Brigitte Dudley, third Lord North, was £1,400 for a pair of Regency jappanned, cabinets-on-stand.

A set of six Queen Anne walnut dining chairs went for £1,250 to Lippe, and another by Benjamin White and George III, £1,000. Another £1,000 went to Turpin.

A tortoiseshell-and-ormolu 3-chain training bracket clock made for the Turkish market went to a private buyer for £1,500.

At Sotheby's a sale of oriental ceramics and works of art realised £18,402. A nine-piece "famille rose" part service went to Mrs. Bobo for £800, a pair of goose incense burners to Rogers for £340, a brightly enamelled vase to Bolton for £440 and a set of ten "famille rose" plates to Collins for £380, all these being Ch'ien Lung period. S. Marchant bought a transitional period polychrome jar for £400.

Sotheby's Belgravian sale of Victorian paintings totalled £11,337. Douglas paid £300 for Dennis for 450 gns. and a metal figure of Cleopatra and ivory figure of Granville. And Lamb £280 for a portrait of Lady Denys by Charles Edward Hall.

At Bonham's £6,608 sale of silver, plate and jewellery, a silver and petr of matching waiters by John Parker and Edward Wakelin. 1767-68 went to Mr. Hart for £300.

At an £8,421 picture sale by King and Chasen, a 150 oz. silver-gilt ewer by the same craftsman for £1,150 gns.

The second day of Christie's sale of the remaining contents of Fonthill House, Tisbury, brought £1,700 for a naval battle scene by Dominic Serres went for £780 to Finch, and The River Ure with Rye Abbey Beyond by Thomas Girtin for £450 to Kendall.

At Phillips' furniture etc. sale, which totalled £27,472, Osborne

paid £1,900 for a giltwood overmantel mirror in the manner of

one by Isaac Oliver of Thomas Johnson, and Brigitte Dudley,

third Lord North, was £1,400 for a pair of Regency jappanned, cabinets-on-stand.

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COMPANY NEWS + COMMENT

Kwik Save Discount exceeds forecasts

BOTH PROFIT and dividend in excess of forecast are announced by Kwik Save Discount Company for the year to August 28, 1971. The company was made public last November.

The final dividend is 35 per cent, making 55 per cent, against a prospectus forecast of 47½ per cent. Pre-tax profit expanded to £1,029,000, against £900,000 forecasted and compared with £843,000 for the previous year. At the half-way stage it was up from £280,000 to £400,000.

The higher than forecast dividend is recommended in view of the results, the directors explain.

Turnover 13,038 11,073
Profit before tax 1,029 663
Taxation 351 398
Net profit 684 557
Other expenses 53 53
Net balance 635 527

Comment

Kwik Save has beaten its pre-tax profits forecast by 14 per cent and improved margins by one point on a turnover rise of 36 per cent. However this was expected, and the share price drop of 10p to 200p ahead of the results is not surprising after a rise from a 1971 low of 113p. As things stand, the 200p share price is 20p above the current market value of 180p. A share reflects Kwik's pale position in discount stores, the fastest area of food retailing at the moment. After two months of the current year sales are apparently up by nearly 40 per cent from 30 (against 25) stores at this time last year. Margins are expected to be maintained and with another six outlets in the offing for 1971-72, the p/e may not be discounting too much.

United Carriers' progress

AFTER TAKING into consideration the contribution from the latest acquisition, S. E. Thomas, pre-tax profits of United Carriers at £425,000, against £323,000 for the half year ended July 31, 1971 showed a 31 per cent. increase, says chairman Mr. R. R. Kearsey.

The second half so far appears encouraging and with the anticipated increase in consumer spending, Mr. Kearsey is optimistic that steady progress will be maintained. Profit for the year to January 31, 1971 was £743,000.

Net profit for the half year came out at £263,000, against £184,000, after tax of £172,000 (1970).

The interim dividend is maintained at 8 per cent on capital increased by a one-for-four scrip issue—an effective rise of 1.8 per cent—costing £53,000 (£47,158). Maintenance of the previous year's rate of 32½ per cent has been forecast.

Comment

A fair slice of United Carriers' 31p (17½p) including the whole 35 per cent growth in six month of the dollar premium.

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Berkeley Property	28	6	ICFC	29	8
Bradford Property	30	7	Kwik Save	28	1
Brit. Electronic Controls	28	4	Lindsey & Kesteven	28	6
Brooke Bond	29	3	London Australian	30	2
Cavenham	31	2	Manganese Bronze	31	1
Century Secs.	28	6	Maynards	30	6
CLRP	30	8	Rank Xerox	29	7
Colonial & General	30	6	Second Consolidated	30	5
Smith Inds.	29	5	Spark Higgs	30	5
Cray Electronics	28	3	Spink & Son	29	8
De la Rue	31	1	East of Scotland	28	2
Fairbairn Lawson	30	3	Tricoville	29	4
Gomme Holdings	30	1	United Carriers	28	1
Upton (E.)	29	6			

Profits stems from Thomas which contributed £20,000 to the annual five months of 1970-71 and good growth to date this year. Moreover, the integration of Thomas taking UC into bitherto uncovered areas in the South East accounts for much of the group's organic growth. UC takes a line through a parcel weight of 28 lb for its charges scale, anything heavier competing with the Post Office but lighter parcels weighing more costly (and the lower the weight the greater the charge differential). Thus the group gained only a modest bonus from the January-March postal strike. Current half profits will gain from a June price increase to cover (and more) a September wage award, and £870,000 pre-tax looks a minimum target for 1971-72. That means a p/e on full capital of 13 at 31p backed by a good earnings record and yield in line with the industrial average at 2.7 per cent. UC appears to have found its medium in express parcels, though a move into mail order is a mooted diversification.

East of Scotland Trust

A FINAL dividend of 4½ per cent share by East of Scotland Trust raises the dividend from 9p to 6½p for the year ended September 30, 1971.

Net revenue for the year increased from £342,649 to £351,554 after tax of £22,625 (22.5%), including overseas tax of £11,083 (£10,423). The amount earned on the Ordinary capital is shown at 7.18p (9.7%). Maintenance of the previous year's rate of 32½ per cent has been forecast.

Ordinary dividends absorb £282,744 (£271,434) and the preferences £51,730 (same).

Net asset value per share was 35 per cent growth in six month of the dollar premium.

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At the attributable level, Amalgamated Securities has turned in a 12 per cent. profits gain for the full year against a 6 per cent. advance after six months. Allowance for conversion of the new loan stock leaves earnings at 38.5p and the shares at 35p (having been as high as 120p and as low as 72p) in a fully diluted p/e of 26. This fall in sell-backs of the sector average of over 36 as shown by the F.T. Actuaries property share index. And while the price is at a substantial premium to the asset value at the end of the last financial year (73p), there is apparently considerable equity in store in a revaluation of the property portfolio—mainly offices and shops scheduled to take place in 1972.

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After tax £40,621 (£34,028), first-half net profit came out at £54,957 (£46,935). The interim dividend is raised 5 per cent to 15 per cent to reduce disparity. The 1970 total was 40 per cent from a net profit of £107,000.

The company manufactures components for the telecommunications and general electronics industries, and cabinets, chassis and modular housings for Telex and Datek equipment.

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RECENT ISSUES

EQUITIES

		1971	Stock	Close	+ or -	Price	Dividend	Dividend Yield	P/E Ratio
F.P.	—	200	Anglo-Am. Inst. Co. (B)	100	-	100	1.5	6.3	11.4
F.P.	—	165	Caron Co. (G)	105	-	105	2.5	5.0	14.4
F.P.	12/1/21	55	Continental Star (P)	55	-	55	1.9	4.7	11.0
F.P.	12/1/21	102	Crown (D) (P)	102	-	102	1.6	4.8	11.7
F.P.	12/1/21	125	Dave Peche (L) (P)	125	-	125	1.6	4.8	11.7
F.P.	2/1/21	74	Davidson (L) (P)	74	-	74	2.7	9.0	10.3
F.P.	2/1/21	65	Diminutive (L) (P)	65	-	65	1.2	4.5	10.3
F.P.	2/1/21	55	Ford (Marl.) (P)	55	-	55	1.5	4.1	15.6
F.P.	2/1/21	85	Globe Corp. (P)	85	-	85	2.0	1.0	15.1
F.P.	2/1/21	45	Grand W. Wines (P)	45	-	45	1.6	5.7	18.9
F.P.	2/1/21	117	Great Farms (P)	117	-	117	1.8	6.9	15.6
F.P.	2/1/21	118	Hartley Wines (P)	118	-	118	1.8	6.9	15.6
F.P.	2/1/21	103	Heide W. Wines (P)	103	-	103	1.4	2.0	14.0
F.P.	2/1/21	55	Hagan Group (P)	55	-	55	2.0	4.5	11.4
F.P.	5/1/21	47	H. T. H. (H. T. H. Wines)	47	-	47	1.6	7.2	8.3
F.P.	5/1/21	27	Vernon's Fashions (P)	27	-	27	1.6	5.4	14.5

FIXED INTEREST STOCKS

		1971	Stock	Close	+ or -	Price	Dividend	Dividend Yield	P/E Ratio
F.P.	—	125	Anglo-Am. Inst. Co. (B)	100	-	100	1.5	6.3	11.4
F.P.	—	165	Caron Co. (G)	105	-	105	2.5	5.0	14.4
F.P.	12/1/21	55	Continental Star (P)	55	-	55	1.9	4.7	11.0
F.P.	12/1/21	102	Crown (D) (P)	102	-	102	1.6	4.8	11.7
F.P.	12/1/21	125	Dave Peche (L) (P)	125	-	125	1.6	4.8	11.7
F.P.	2/1/21	74	Diminutive (L) (P)	74	-	74	2.7	9.0	10.3
F.P.	2/1/21	65	Ford (Marl.) (P)	65	-	65	1.5	4.1	15.6
F.P.	2/1/21	85	Globe Corp. (P)	85	-	85	2.0	1.0	15.1
F.P.	2/1/21	45	Grand W. Wines (P)	45	-	45	1.6	5.7	18.9
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Brooke Bond Liebig earns Averys expects big profit advance

NET EARNINGS from Brooke Bond Liebig have come out better than expected, the dividend for the year to June 30, 1971, was listed for the equivalent of 102 per cent to 107.5 per cent, with a final of 7.5 per cent.

At the half-way stage net earnings were estimated to be only a little short of 1069.70 a £1.56m.

In the event the final outcome is based mainly on last year's timetable.

ket there will be considerable opportunities for expansion.

For Bellino Fashions, the chairman reports that following the move to new showrooms and offices, the growth of sales of knitwear, scarves and blouses has been considerable. The recently introduced sportswear division is expected to make a "useful" contribution to profits in the coming year.

Meeting, Winchester House, E.C., November 25 at noon.

10-DAY

INTERNS: Alcan, Altimont, Arystar,

Bata, Batafond, Belvoir, Electrical

Components, General Electri-

c, GEC, GEC Marconi, GEC

Marconi, GEC Teletronics, GEC

Teletronics, GEC Teletronics

Electronics, GEC Teletronics

INTERNATIONAL COMPANY NEWS + EURO MARKETS

Fiat reveals Polish plant plan and '71 profit hopes

FIA's president, Giovanni Agnelli, said to-day that Fiat profitability will be better in 1971 than it was last year.

Fiat earned a net profit of Lire 5,311m. for 1970.

He also revealed that a new plant to produce Fiat cars under licence in Poland will manufacture a completely new model which will be the smallest in the whole range. But he would not give any more details of the new car.

He said the plant was planned to have an initial output of 150,000 units a year, and this could eventually be doubled.

He added that he considered Eastern Europe to be the fastest growth area for the motor industry generally over the next decade. Fiat's Tagliatigrad plant in the Soviet Union, he stated, is working satisfactorily and output should rise to 1,500 cars per day in 1973 from the present 1,000-a-day level.

Agnelli told the Press conference that Fiat's overall production levels for 1971 should be close to the 1,555,000 units produced in 1970, in spite of a loss of 132,000 units in the first half.

Output levels in the second half of 1971 should be 5 per cent above those of second-half 1968, which is the last non-strike-affected base period.

IN BRIEF

Europe

UGINE KUHLMANN to-day floated Frs.27.5m. 20-year, 8½ per cent bond loan priced at 98½ per cent.

SHELL INTERNATIONAL FINANCES of Curacao, will float a Sw.Frs.50m. 15-year loan at 8½ per cent on the Swiss capital market between November 3 and 9.

Schweizerischer Bankverein confirmed as issuing syndicate leader.

MADERAS INTERNACIONALES (MADISA), the Spanish timber trading company, and the Colombian Maderas da Uraba have launched a joint programme for the import and distribution of tropical timber in Spanish and other European markets. Based on the Colombian company's 400,000 square kilometre forestry concession, the timber will be shipped to Northern Spain for storage and transformation into plywood for local consumption and re-export to other European markets.

HURTERY made a provisional loss of Frs.18.15m. in the first half of this year. In the whole of 1970, the engineering company made a net loss of Frs.63m.

CIE DU NORD, the Rothschild group holding company, said revenues after tax in the first nine months of the year fell 30.9m. from Frs.48.8m. in same 1970 period.

AUTOMOBILES M. BERLIET, the heavy vehicle offshoot of Andre Citroen said pre-tax turnover for the first nine months of 1971 rose to Frs.1,830m. from Frs.1,530m. in the same 1970

On the labour situation, Agnelli noted that the three-year national engineering contract comes up for renegotiation at the end of 1972. Reuter

TURIN, Nov. 2.

He felt they would take place in a less extreme atmosphere than those of autumn, 1969.

Lebanon Minister in talks on La Ciotat crisis

BY JANE BERGEROL

PARIS, Nov. 2.

THE LA CIOTAT shipyard, near Kuwait failed to persuade Kuwaiti shareholders to contribute towards the capital increase, and followed after the crash of a canvassing of Saudi Arabian intra-Bank in 1966 from the Lebanese Bank's assets, was the subject of talks here to-day between Mr. Abou Hamad, Lebanese Foreign Minister, and M. Jean de Linkowski, Secretary of State at the French Foreign Ministry.

The shipyard has been ordered by creditors to more than double its capital to Frs.33.5m., thus removing control from the Lebanese group which currently owns an 82 per cent stake in the existing capital of Frs.43.5m.

The intra-Bank group is reportedly split over the advisability of bidding for continued control over the yard. It is having difficulty in raising cash—a visit to the new share issue is launched

Nippon Steel cuts 10% off executive salaries

TOKYO, Nov. 3.

NIPPON STEEL CORPORATION plans to cut the salaries of its executives by 10 per cent, with effect from this month.

The company also said it will cut the semi-annual bonuses of these executives by 20 per cent.

At present, Nippon Steel's 45 executives, including auditors, earn an average of Yen 610,000 (\$1854) a month, and their average bonus for the six months ended March 31 was Yen 980,000, or close on \$3,000.

Nippon Steel said it took the decision following a forecast that no early recovery of business conditions in the steel industry can be expected.

Japan's major steel producers are attempting to have the Ministry of International Trade and Industry (MITI) issue an "administrative guidance" instruction asking for a cut in steel production. The manufacturers want a uniform production cut to prevent domestic market prices from declining further.

Nippon Steel has had additional difficulties in that its share of overall Japanese steel production fell to 34.3 per cent in the half-year ended September from 36.3 per cent a year earlier, through domestic users diversifying their sources of supply.

NYSE firms to merge

NEW YORK, Nov. 2.

FAULKNER, Dawkins and Sullivan and H. Bentz and Co. have announced agreement in principle to merge. The combination will have gross revenues of about \$50m. and a capital of \$34m.

Both firms are members of the New York Stock Exchange and other principal security exchanges in the U.S. Bentz is also a member of a number of commodity and financial associations.

The Institut de Developpement Industriel, France's equivalent to the U.K.'s former Industrial Development Corporation, will be the new shareholders willing to bid for the majority stake when the new share issue is launched.

STANDARD Oil Company (Ohio) will offer the 93.6 per cent interest it holds in Canadian Delhi Oil of Calgary to Canadian investors, subject to favourable stock market conditions. The sale of its interest in Canadian Delhi became necessary to avoid possible conflict of interest in exploration programmes in the Arctic.

British Petroleum of Britain acquired a 25 per cent interest in Sohio in 1970 and through that acquisition an indirect interest in Canadian Delhi. At the same time, BP owns a 66 per cent interest in BP Oil and Gas of Calgary, which competes with Canadian Delhi in exploration programmes in the Canadian Arctic.

A announcement concerning a major exploration undertaking by Canadian Delhi, which is to change its name to Candel Oil, in conjunction with unidentified U.S. gas utilities and transmission companies, will be made within two weeks. It will centre on the Mackenzie River Valley in the North-West Territories.

DAIWA HOUSE INDUSTRY COMPANY net profit after tax fell 4½ per cent to Yen 2,423m. for the six months to September 30, from Yen 4,073m. in the preceding term to March 31.

STEELMENSOCH WINE TRUST consolidated tax profit was Rmb. 10.7m. for the six months to September 30.

NEW ZEALAND FOREST PRODUCTS and Tasman Pulp and Paper Co. will each subscribe \$m. to New Zealand Maritime Holdings, which has to raise \$m. for its purchase of the half-share of Union Steam from P and O. The other 50 per cent will be held by Thomas Nationwide Transport of Australia.

DAIWA HOUSE INDUSTRY COMPANY net profit after tax fell 4½ per cent to Yen 2,423m. for the six months to September 30, from Yen 4,073m. in the preceding term to March 31.

TOYO KOGYO COMPANY expects a major exploration undertaking by Canadian Delhi, which is to change its name to Candel Oil, in conjunction with unidentified U.S. gas utilities and transmission companies, will be made within two weeks. It will centre on the Mackenzie River Valley in the North-West Territories.

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RICHARD ZANUCK to-day sued his father, Darryl F. Zanuck, and other officials of 20th Century Fox for \$14.4m. for dismissing him as president of the film company last December.

He filed a joint suit seeking

a total of \$18.2m. damages with his wife, Linda Harrison, and David Brown, former director of Fox's creative operations.

Their \$39-page claim alleged

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In the investment game, Charterhouse can put you several moves ahead.

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We believe that the ability to take a successful forward view in the management of investment funds requires two things.

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Secondly, a clear-cut strategy. We like to deal on a personal level with our clients. We agree on investment objectives - the type of investment and the return required. Then we manage the fund against these specific objectives on a day-to-day basis.

We see ourselves as specialists in the prompt identification of change and the exploitation of what such change implies.

If you think our particular expertise can help you please contact Michael Levele of the Charterhouse Finance Corporation at 01-248 3999. Or if you are in the Midlands ring Ralph Samuell at 021-236 4936.

Charterhouse

The Charterhouse Group Limited, 1 Paternoster Row
St Paul's, London EC4P 4HP

Alfa Romeo and Fiat star at Turin show

By JAMES ENSOR

TURIN. Nov. 2.—**ALFA ROMEO** Alfaud will be hard to dislodge, but he feels that Fiat, which still holds 64 per cent of the market, would recover some ground this year.

"They are similar cars, are designed to appeal to same type of customer and show the way in which Italian car design is moving. Italians tend to set new trends for Europe, because of the large number of independent styling studios in Turin and Milan."

Fiat's prominence in European design has been confirmed by Ford's decision to open its styling studio here. The product of this, a special 1.6 litre 1600 mid-engined sport/touring car, is on show.

It is notable how alike the Fiat and the Alfa are in styling: are broad, squat, fastback, clipped rear ends and hoods. Both have front-wheel drive and powerful over-camshaft engines of small size. The 1200 c.c. Alfaud is little slower than the 100 h. 1300 c.c. Fiat coupe. But they are fast, sporting cars, and radio tyres and disc brakes when they reach the British market at the end of 1972 or in 1973, both are likely to between £1,200 and £1,300.

oles plant

The Alfaud, which will be in a new plant near Naples, at a rate of 250,000 per year, is Alfa's bid to break out of the mass market class to become a premium-sized motor manufacturer.

It will raise Alfa's output from 100,000 last year to 150,000 in 1972. The 128 coupe, based on the Fiat 128 saloon, which is now the world's third best-selling car, is also to follow Alfa's plan.

Mr. Louis Beare, managing director of BL Italia, commented:

"Now we have established our own marketing operation, we are in a good position to take advantage of Britain's entry into the EEC."

The Italian car market is highly competitive, but I believe we have a range which has great appeal to the Italian buyer. Fiat will become increasingly attractive as import duties are reduced."

New industry in mid-Wales

ELECTRICAL and Engineering Services (Victoria), of Wellington, Northants, is to take two advance factories built by the Mid-Wales Development Corporation. Each is of 10,000 square feet and capable of expansion. Eighty new jobs will be created. The company manufactures electro-plating plants and control equipment, etc., will treat its entire production to Newtown early in 1972.

MILN MARSTERS

Plant Breeders & Seed Specialists

Soundly Based for Further Growth.

Recent points from the circulated statement of Mr. George E. P. Miller, Chairman of The Miln Marsters Group Ltd.

On 1st June, 1971 the name of the Company was changed to "The Miln Marsters Group Limited" of Chester and King's Lynn. This united two of the most respected names in the Seed Trade—(David Miln & Co. (Seedsmen) Limited and C. W. Marsters Limited) and should have beneficial effects on the affairs of the Company.

The Group profit after depreciation but before taxation amounts to £223,497 against a corresponding profit of £223,497 for the previous year. Total dividend recommended 16% (12%).

We have continued the policy of rationalisation with considerable effect and this has contributed largely to the improved results, since competition is still fierce in the Seed Trade.

Without doubt a valuable contribution to the year's trading has been the launching of our new barley variety MIDAS which we consider will continue to maintain the reputation of the Company and agriculture generally, while the UNIVERSE, another new Miln Marsters variety, promises well for the future. Meanwhile, our well tried variety GOLOEN PROMISE continues to increase in popularity.

With three years of increasing dividends behind us, I see no reason why, at the present higher rate of dividend should not at least be maintainable for our current year. The Company is now soundly based both financially and administratively and the way should be clear for further growth.

The Annual Meeting on November 2 in London, the Chairman announced the retirement from the Board of Mr. John Hodge after 38 years' service and paid tribute to his loyalty and unwavering devotion to the Company's affairs.

Advertisement is issued in compliance with the requirements of the Council of the Stock Exchange, London.

COMBINED ENGLISH STORES GROUP LIMITED

	Share and Loan Capital	Issued
£300,000 in 7½ per cent Cumulative Preference shares of £1 each	300,000	
,000,000 in Ordinary shares of 12½p each (fully paid)	1,694,783	
in Ordinary shares of 12½p each (5 per cent paid)	3,188	
		£1,997,971
8½ per cent Partly Convertible Unsecured Loan Stock 1986-91		£1,850,000

Application has been made to the Council of the Stock Exchange, London, for permission to deal in and quotation of £1,850,000 8½ per cent Partly Convertible Unsecured Loan Stock 1986/1991. Particulars of the Stock will be available from 3rd November, 1971, in the Exchange Telegraph and Moodies Statistical Services and may be obtained during normal business hours on any weekday (Saturdays and Bank Holidays excepted) up to and including 26th November, 1971.

Slater, Walker Limited,

30, St. Paul's Churchyard,

London, EC4M 8DA,

or

Panmure Gordon & Co.,

21, Austin Friars,

London, EC2.

£25m. order for bridge at stake

By Michael Cassell

BRITISH BRIDGE BUILDERS is to try to secure a £25m. contract to build what would be the world's largest single-span suspension bridge, across the Humber estuary.

The British position in Italy is not strong. It rests entirely on the Mini and the Jaguar XJ6, which has won a small but commanding place in the market. Only a few hundred British Fords, Vauxhalls or Chryslers are sold in Italy and the market seems to prefer smaller, sportier cars such as the Mini. However, British entry to the Common Market may encourage the three American entry to the Common Market may encourage the three American companies to return to supplying the Italian market with British cars.

Leyland progress

British Leyland announced at the show that its car exports to Italy in the first nine months of 1971 were 14 per cent above the equivalent period last year. Shipments of built-up and CKD cars from Britain totalled 43,911 units, compared with 38,601 in the year earlier.

The demand for Mini and 1100 models, which are assembled in Italy under licence by Lancieri, has shown a steady increase in recent years. Sales of the Innocenti-assembled range increased by almost 12 per cent in the seven months to July 31 compared with the same period last year.

The balance of the British Leyland range—Rover, Triumph, Jaguar and Austin-Morris vehicles not assembled locally—are imported built-up into Italy by BL's own sales subsidiary, which was established in April. It has appointed a multi-franchise chain of 62 sales outlets for those vehicles.

Mr. Louis Beare, managing director of BL Italia, commented: "Now we have established our own marketing operation, we are in a good position to take advantage of Britain's entry into the EEC."

The Italian car market is highly competitive, but I believe we have a range which has great appeal to the Italian buyer. Fiat will become increasingly attractive as import duties are reduced."

RAC move to combat fog menace

THE RAC yesterday suggested that brighter rear lights on vehicles could help combat the fog menace, and called for investigation of ways to reduce costs and hence cut vehicle damage from fog.

For war Britain's number one motoring menace, the Secretary-General of the RAC, Mr. Mills Baldwin, said at Birmingham.

"We have asked the Road Research Laboratory for information on their investigations into accidents in fog and of new developments to deal with the problem. In particular, we have asked what assessment has been made of the advantages of brighter rear lights for use in fog."

Mr. Mills Baldwin said this would enable following vehicles to travel further behind without losing sight of the rear lights of the vehicle in front. The distance for braking in an emergency would therefore be greater.

"We noted that in the M6 disaster a short time ago, many of the killed and injured were occupants of private cars crushed by much heavier commercial vehicles."

"Accordingly, we have asked the Laboratory if they have considered any possible ways in which it would be practicable to segregate commercial and private traffic, for instance, by requiring lorries and cars to use separate lanes."

'Point of law' defence in £148,000 suit

By Our Own Correspondent

GUERNSEY. Nov. 2.—A POINT OF LAW is to be the initial defence of National Westminster Bank Finance (CI) in a case in Guernsey in which the company is being sued for over £48,300 damages.

This was explained to Guernsey's Royal Court to-day by the company's advocate when he asked for a week's adjournment so that the point of law could be argued before the Island's bailiff, Sir William Arnold, who was not presiding at to-day's sitting.

National Westminster Bank Finance (CI) had been ordered by the court to table defences by to-day to the damages claim which is being brought by Houghes Fouquer (Property) Co. of St. Peter Port.

The claim arises from the alleged failure of the company to honour a written agreement to lend £220,000 to Mr. W. J. Wade, a director of the property company, for the purchase and development of a local hotel.

FEWER KILLED IN PITS

The number killed and injured in coal mining accidents dropped from 400 killed and 2,000 seriously injured in 1968 to 91 killed and 641 injured in 1970, says Mr. J. W. Calder, Chief Inspector of Mines and Quarries, in his report for the two years (BMSO, price 40p).

But he finds no cause for complacency and draws attention to the continued increase in the rate of accidents in haulage and transport and surface categories.

These, he says, are partly due to changing techniques and the more intensive use of plant and machinery.

Mr. Bryan Fawcett, managing director of Crosfields Farm Foods (South West), a subsidiary of Crosfields and Calstock.

Mr. D. A. Taylor, who joined AUTOMATED PRINTED CUTTINGS earlier this year as sales director, has now been appointed managing director.

Mr. P. F. Rogers, formerly a director and general manager, is leaving the company to devote more time to his own business interests.

Miss E. Gurnett, managing director of Rainham Timber Engi-

APPOINTMENTS

Sir H. Prideaux to head Brooke Bond Liebig

Sir Humphrey Prideaux is to become chairman of BROOKE BOND LIEBIG on January 1 in succession to Mr. John Brooke, who retires at the end of this year.

Other changes taking place on the Board at that time will be the appointment of Mr. P. Blackhurst and Mr. P. L. Brasier and the retirement of Mr. K. R. M. Carlisle, Mr. D. G. H. Wright and Mr. J. V. Cooper.

Mr. J. S. Hendrick is to relinquish his positions as managing director and chief executive of BROOKE BOND OXO on December 31 to be chairman of that company. Mr. R. Tring will replace him as managing director and chief executive and Mr. J. M. Thompson and Mr. P. E. Sawdy are joining the Board.

Mr. W. L. Bell, at present head of the British Development Division in the Caribbean, has been appointed Director of the Council for TECHNICAL EDUCATION AND TRAINING FOR OVERSEAS COUNTRIES. He will be succeeded as head of the Development Division by Mr. J. E. Redman, at present an assistant secretary in the Overseas Development Administration. It is expected that both appointments will take effect in January.

Lord Thomas of Monhampton has resigned as a director of CARBON ELECTRIC HOLDINGS to reduce his business commitments. He continues as president.

Mr. Koosrad Kohlhammer, managing director of Konradin-Verlag Robert Kohlhammer GmbH, Stuttgart, has been elected chairman of INTERNATIONAL BUSINESS PRESS ASSOCIATES.

The ABBEY NATIONAL BUILDING SOCIETY has made the following appointments from November 1. Mr. H. P. Timberlake, chief general manager and Mr. G. H. Optiz a joint general manager. Mr. R. P. Harding remains joint general manager.

These appointments follow the retirement earlier this year of the retirement from executive office of Mr. S. W. G. Morton, managing director, and Mr. N. F. Geddes a joint general manager. Mr. Morton continues as deputy chairman and Mr. Geddes appointed to the Board.

Mr. Brian Gore is to join RANK BUSH MURPHY on October 1 as managing director. He is at present a director of Garland Compton.

Mr. R. T. F. Allen and Mr. R. A. Carter have been appointed to the Boards of ALLOY AND METAL STOCKHOLDERS, ALLOY AND METAL PRODUCTS, and ALLOY AND METAL (OVERSEAS).

Mr. R. O. Kerr, general manager of HOLLOWAY HALL AND CO. has joined the Board.

Mr. H. Saxon Tate, a director of Tate and Lyle and managing director of Canada and Dominion Sugar, has been elected a fellow of the AMERICAN MANAGEMENT ASSOCIATION.

Mr. Denys Scholes, technical of PLESSEY TELECOMMUNICATIONS, is to retire at the end of the year, but will remain as consultant.

Mr. T. A. O'Malley, a regional director with FORWARD TRUST (Midland Bank Group), has been appointed marketing director.

E. C. PAYTER AND CO. an Alcan Booth Industries' subsidiary, now incorporates Alcan Building Services, formerly a division of Alcan Booth.

Mr. L. P. Bowen has been appointed sales director of E. C. Payter and Mr. W. P. Cotton has become sales director of Alcan Building Services.

Mr. C. E. Birkenhead has been appointed a director of FIBREGLASS (Pilkington Group) and continues as general manager of the company's insulation division.

Mr. C. W. Thorpe has been appointed sales director of LAWTON (SUCCESSORS), a subsidiary of Bury and Masco (Holdings). Prior to this appointment Mr. Thorpe was with Bury and Masco Industries.

Mr. J. H. Lloyd has retired from the Board of the MILN MARSTERS GROUP. He had been with the company for 38 years.

Mr. Bryan Fawcett has been appointed managing director of CROSFIELDS FARM FOODS (SOUTH WEST), a subsidiary of Crosfields and Calstock.

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Sir Humphrey Prideaux

neering Co., Mr. D. S. Cook, Mr. J. S. Coarsh and Mr. H. F. Hillman have been appointed to the Board of the PHOENIX TIMBER COMPANY.

Mr. D. R. Longhurst and Mr. R. W. Marsh have joined the Board of Phoenix Softwoods.

Mr. Keith Drake, managing director of General Foods, Banbury, has been appointed president/director-general of GENERAL FOODS FRANCE from January 1. Mr. G. Westrop will succeed Mr. Drake as managing director at Banbury from January 1. Mr. Westrop is currently general manager of G. F. Kibon in Brazil.

Professor S. F. Edwards, professor of theoretical physics, University of Manchester, has been appointed a member of the UNIVERSITY GRANTS COMMITTEE.

Mr. K. P. Legg, Mr. M. V. St. Giles and Mr. T. K. Faris have been appointed additional directors of the LONDON AUSTRALIAN AND GENERAL EXPLORATION COMPANY, a subsidiary of Jeessel Securities.

Mr. William Major, a vice-president of Bankers Trust Company, London, has been appointed a director of BANKERS TRUST FACTORS.

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This Advertisement is published in connection with an application to The Council of The Stock Exchange, London, for permission to deal in and for quotation for the whole of the issued share capital of Highland Electronics Group Limited ("the Company") and is not an invitation to any person to subscribe for or purchase any shares in the Company, issued in compliance with the regulations of The Stock Exchange, London, for the purpose of giving information to the public with regard to the Company. The Directors collectively and individually accept full responsibility for the accuracy of the information given and confirm, having made all reasonable enquiries, that to the best of knowledge and belief, there are no other facts the omission of which would make any statement in this Advertisement misleading.

HIGHLAND ELECTRONICS GROUP LIMITED

(Incorporated under the Companies Act, 1929)

Authorised

£2,500,000

On 15th October 1971, the Company and its subsidiaries ("the Group") had no mortgages, debentures, charges, loan capital, bank borrowings or similar indebtedness, guarantees (except in the ordinary course of business), hire-purchase commitments or other material contingent liabilities.

DIRECTORS
JACK DELLA, 23 Ilchester Place, London W14 8AA. (Chairman)
MICHAEL COHEN, B.Sc., 20 Fellowfield, St. Mawes, Middlesex. (Managing Director)
STANLEY MALCOLM VAN GELDER, F.C.A., 2 Cambridge Square, London, W2 2PS

BANKERS
LLOYDS BANK LIMITED, 83 Cannon Street, London EC4N 8DL
DALTON, BARTON AND COMPANY LIMITED, Hyde Park House, 60 Knightsbridge, London SW1X 7JZ

BROKERS
JOSEPH SEBAG & CO., 3 Queen Victoria Street, London EC4N 8DX, and The Stock Exchange, London

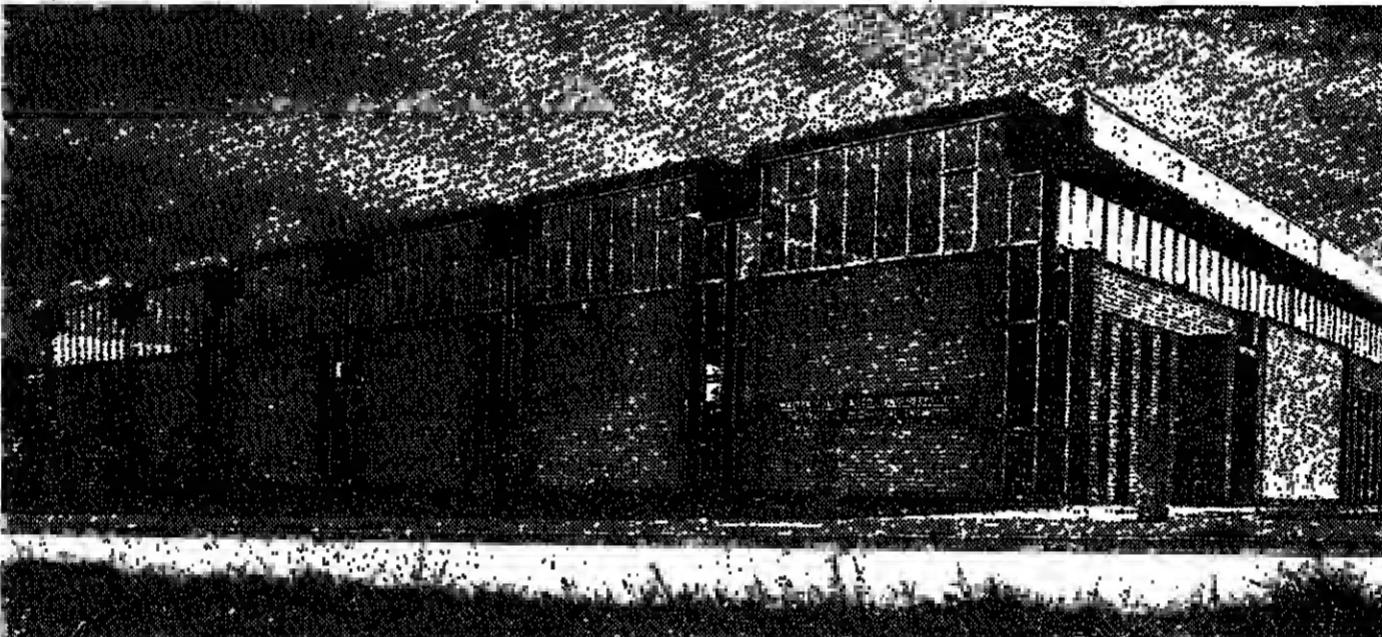
SOLICITORS
D. J. FREEMAN & CO., 9 Cavendish Square, London W1M 9DD

AUDITORS
WHEAWILL & SUDWORTH, 10 Cork Street, London W1X 2NR. (Chartered Accountants)
GOODMAN, JONES & PARTNERS, 61 Portland Place, London W1N 3AJ. (Chartered Accountants)

REPORTING ACCOUNTANTS
PEAT, MARWICK, MITCHELL & CO., 11 Ironmonger Lane, London EC2P 2AR. (Chartered Accountants)

Issued, fully paid and converted into Stock

£1,750,422



The Walter Jones Factory at Ashford, Kent

The title to approximately 31 per cent. of Nucleotronics' property at Meppenham is freehold, the remaining 69 per cent. being registered at H.M. Land Registry with a freehold possessory title. Insurance has been effected against the possibility of Nucleotronics' title to the possessory portion proving deficient.

Nucleotronics' factory occupies an area of approximately 3,000 sq. ft., and planning permission is being sought for further structure of approximately 2,000 sq. ft. to be erected on adjoining land.

The Ardente Companies

Both Ardente and Acoustic were incorporated in 1937. Ardente is a marketing company selling hearing aids, under the trade name of "Ardente", and accessories, produced principally by Acoustic at its manufacturing plant at Windsor. Both companies were founded by the Oent family and remained in their control until 1980 when they were acquired by EMI. Ardente's main office and selling organisation is at Windsor and it has twelve shops bearing Ardente's name in major centres throughout the United Kingdom from which it sells its own aids and accessories.

Ardente moved to premises in Windsor in 1965 at which it carried on its production until 1967, when Acoustic took over the manufacturing side of the business from the same premises. Ardente's profits suffered in 1967 and 1968 when their share of the market was reduced due to a balance of old designs and insufficiently vigorous new models. The Ardente Company now employs 150 people, of whom 80 work at Windsor and the remainder are either employed in or sell from the regional shops. Sales are made on a cash, credit or internally financed hire purchase basis and since early 1970 Ardente has also rented out aids. The renting of aids will become an increasingly important part of the business, and at present 40 per cent. of all hearing aids despatched to customers are on a rental basis.

It is intended with the help of the design team of Highland that a new range of hearing aids be designed to make Ardente more competitive both in the home and overseas markets. It is also proposed to further promote the rental side of the business where the Directors consider good opportunities lie. In addition, the Directors consider it would be advantageous for further shops to be opened in other major centres in the UK and abroad, and new selling techniques including a new incentive scheme for salesmen have been introduced. Ardente is becoming increasingly involved in the screening and monitoring of industrial noise, and as a result is increasing its sales of our protective equipment.

Management

The Managing Director of each of the Ardente Companies, Mr. Percy Henry Joseph Sorling, aged 56, has been working for the Ardente Companies since 1937. Mr. Michael Cohen, the Managing Director of the Company, has had considerable experience in this sector of the electronics industry and is on the Boards of the Ardente Companies.

Premises

Ardente's regional offices are all leasehold premises with the exception of its freehold property at 5 Royal Exchange Square, Glasgow, C1, with an approximate floor area of 422 sq. ft.

Details of the leasehold premises are as follows:

Location	Approximate Area Sq. ft.	Unexpired Term Years	Annual Rent £
Ardente House, Thames Avenue, Windsor, Berkshire	7,680	14+	5,200
98, 100 and 102 Wigmore Street, London, W1	15,422	4½ - 8½	17,900
3/5 Duke Street, London, W1	697	10½	1,475
St. Martin's House, Bull Ring, Birmingham, 5	2,500		
345 Victoria Street, Blackpool	303	1½	650
10a Montfort Street, The Broadmeads, Bristol, 1	590	14½	900
64 Queen Street, Cardiff	495	4½	300
8 Railway Street, Chatham, Kent	196	2½	300
10 Station Road, West Croydon, Croydon, Surrey	287	4½	750
5 Crown Passage, Kingston-upon-Thames, Surrey	196	1½	550
5 Albion Street, Leeds, 1	619	4½	1,400
58 South John Street, Liverpool, 1	556	6	900
56 King Street, Manchester, 2	4,455	8½	4,000
24 Castle Street, Swansea, Glam.	844	6½	750

Notes:
(1) Parts of the London and Manchester premises are subject to the extent of approximately 13,179 sq. ft. and 3,570 sq. ft. producing an annual rental of £22,150 and £2,700 respectively.
(2) The premises at Kingston-upon-Thames are fully sublet, producing a rental of £700 p.a.

Walter Jones

Walter Jones was incorporated in 1938 to acquire the electrical and mechanical engineering manufacturing business of Walter Jones and Sons, founded in 1818 by the late Mr. Walter Jones, father of the present chairman and managing director. The business consists of the design and manufacture of high precision crossing machines with associated electronic equipment. The products of the company include rotary converters, tachometer generators, electronic speed regulators, servo amplifiers, a.c. servo motors and telephone exchange ringing and signalling machines.

Share Capital

in 12,500,000 Ordinary Shares of 20p each, of which 8,752,110 have been issued

SECRETARY AND REGISTERED OFFICE

BARRY MARTIN PINCUS, A.C.A., Hyde Park House, 60 Knightsbridge, London SW1X 7JZ

REGISTRARS AND TRANSFER OFFICE

CHARTERHOUSE REGISTRARS LIMITED, Granby House, 95 Southwark Street, London SE1 0JA

THE GROUP

The Company, which is a holding company, has the following subsidiaries:

Name of Company
Highland Electronics Limited ("Highland")
Walter Jones & Co. (Engineers) Limited ("Walter Jones")

Ardente Limited ("Ardente")
Ardente Acoustic Laboratories Limited ("Acoustic")
The Whalton Shipping Company, Limited ("Whalton")
Nucleotronics Limited ("Nucleotronics")
W. S. McMillan & Co. Limited ("McMillan")
British Cybercom Limited ("British Cybercom")

Principal Business
Manufacture of electronic equipment.
Manufacture of electrical and electronic equipment.
Marketing of hearing aids.
Manufacture of hearing aids.
Investment Company.
Manufacture of resistance thermometers.
Distribution of electronic equipment.
Not trading.

- (i) Where audited accounts covered periods other than the twelve months, profits have been apportioned on a time basis.
- (ii) Adjustments have been made to exclude the interest received or expended on acquisitions.
- (iv) The above profits have been arrived at after deducting exceptional items. In the year of £24,370 for Ardente and £3,123 for Highland.

The sales of Highland in the five months ended 30th September, 1971, were slightly lower than those for the equivalent period of 1970, but this shortfall is more than offset by increased sales achieved by Ardente and Walter Jones in this period. Ardente has increased its business of renting hearing aids as mentioned and it is intended to promote a new range of aids with the assistance of the department of Highland, which it is hoped will make Ardente more competitive in home and overseas markets.

Although the Directors of the Company are at this stage unable to make any of the consolidated trading results for the year ending 30th April, 1972, they are able to recommend a dividend of at least 6 per cent. for the year to the shareholders on or about October, 1972. When the trading results of the Company six months to 31st October, 1971, are known, further information on the profit for the current year will be made available to stockholders.

Accountants' Reports

(A) The following is a copy of a Report on the Company and Whalton, addressed to the Directors of the Company by Wheawill & Sudworth, and Goodman, Jones & Partners, joint auditors to the Company;

The Directors,
Highland Electronics Group Limited,
Hyde Park House,
60 Knightsbridge,
London SW1X 7JZ.

27th October, 1971

Gentlemen,
Highland Electronics Group Limited
The Whalton Shipping Company, Limited

Highland Electronics Group Limited ("the Company") and The Whalton Shipping Company Limited ("Whalton") have not traded since they sold their ships in 1970 and their total net income before charging taxation, during the 16 months ended 30th April, 1971, amounted to £107,410 in respect of the amounts of undrawn deposits less provision for losses on realisation of insurance claims. The net assets of the Company and Whalton as shown by the audited accounts at 30th September, 1971, are set out below—

1. Net Tangible Assets

INVESTMENTS IN SUBSIDIARY COMPANIES	£
Shares at cost	1,073,268
Amounts due including proposed dividends	138,193
	1,211,461

CURRENT ASSETS	£
Debtors and accrued income	21,434
Insurance claims	22,708
Cash at banks	722,693
	766,831

Less:

CURRENT LIABILITIES	£
Creditors and accrued charges	54,937
Current taxation	42,736
Proposed dividend	80,426
	178,099

NET CURRENT ASSETS

£ 1,044,332

Less: Corporation Tax payable 1st February, 1972

£ 1,044,332

NET TANGIBLE ASSETS

£ 7,975,500

Notes:

(i) Shares at cost, including expenses: Highland Electronics Limited £838,625; Ardente Limited and Ardente Acoustic Laboratories Limited £24,743.

(ii) There were no capital commitments at 30th April, 1971.

2. Directors' Emoluments

No emoluments were paid by the Company to directors in respect of the short period from 1st October to 30th April, 1971. Mr. M. Cohen waived remuneration from Highland Electronics Group Limited ("Highland") for the period from 1st October to 30th April, 1971, amounting to £7,500 in respect of the period of his appointment as a director of the Company. Mr. Cohen's emoluments in the current year will be £7,500 payable by Highland Electronics Limited.

3. Dividends.

The dividends paid and proposed on the issued share capital of the Company for the five years and four months ended 30th April, 1971, are shown below.

Dividends

On issued capital of £1,218,312—

Year ended 31st December, 1966 to 1968

Year ended 31st December, 1969

On issued capital of £1,750,422—

18 months ended 30th April, 1971, for which provision has been made above

(after allowing for dividends waived in respect of £41,000 of issued share capital).

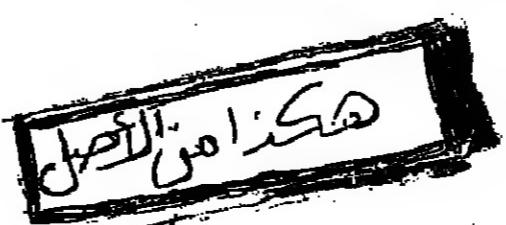
4. Accounts

No audited accounts were made up in respect of any period after 30th April, 1971.

Yours faithfully,

WHEAWILL & SUDWORTH
Chartered Accountants

GOODMAN, JONES & PARTNERS
Chartered Accountants



(B) The following is a copy of a report on Highland and its subsidiaries addressed to the Directors of the Company by Peat, Marwick, Mitchell & Co.:

Directors,
Highland Electronics Group Limited.

27th October, 1971.

Gentlemen,
Highland Electronics Limited
Nucleotronics Limited

We have examined the audited accounts of Highland Electronics Limited ("Highland") and its subsidiary Nucleotronics Limited ("Nucleotronics") for the periods below.

Highland— from 21st December, 1962 (date of incorporation) to 30th April, 1971.
Nucleotronics—for the 23 months ended 30th April, 1971.
A further subsidiary, British Cybercom Limited has not yet commenced trading.

Highland acquired the whole of the issued ordinary share capital of Nucleotronics at a cash consideration of £26,000 on 30th January, 1970.

Turnover and Profits.
We set out below the turnover of Highland for the period 21st December, 1962 to 30th April, 1971, to which has been added that of Nucleotronics as from 30th January, 1970—

Period ended	30th April, 1964	13,265
Year ended 30th April, 1965	34,045	
1966	65,223	
1967	141,181	
1968	165,108	
1969	165,108	
1970	305,249	
1971	457,720	

During the course of the audit of Highland for the year ended 30th April, 1971, it was found that certain stocks had not been included and on investigation it was found that there were similar omissions in respect of earlier years. It has been possible to construct the position at 30th April, 1970, which has resulted in an increase in profit for the year ended 30th April, 1970, of £17,428. It has not been possible to determine the stock adjustments required in respect of earlier periods (or whether any or adjustments are required) and we are therefore unable to report on the results of panels up to and including the year ended 30th April, 1970, other than in regard.

The consolidated trading results of Highland and Nucleotronics for the periods 1964 to 1970, arrived at on the basis stated below, were as follows:—

Period	Turnover	Profit before charging depreciation and taxation	Depreciation and amortisation	Profit before taxation
(1)	£	£	£	£
1 December, 1962 (date of incorporation) to 30th April, 1970	918,852	210,852	6,835	204,017
1970 (30th April, 1971)	457,720	117,020	4,029	112,981

Notes:
(i) The profits shown in column (5) above are stated before taxation but after charging all expenses, including depreciation and amortisation as set out in column (4) e. bank interest and directors' emoluments and after making such adjustments as consider appropriate.

(ii) The profit for the year ended 20th April, 1971, is stated after writing off a sum of £1,183 in connection with a new venture which has been discontinued.

(iii) For the year ended 30th April, 1971, directors have waived emoluments lying £10,500.

2. Net Tangible Assets.

The combined net tangible assets of Highland and Nucleotronics at 30th April, 1971, based on the audited balance sheets at that date and after making such adjustments as we consider appropriate, were as follows:—

Cost or Valuation	Depreciation	Net Book Value
£	£	£
Freshhold property (Note (i))	11,025	8,439
Plant, machinery and fixtures	25,204	16,765
Motor vehicles	7,574	2,218
TOTAL	£44,103	£10,665

RENTAL ASSETS.
The stock and work in progress at lower of cost and market value, less accumulated depreciation, due from fellow subsidiary company, debitors and prepayments, cash at bank and in hand.

Period	Turnover	Profit before charging depreciation and taxation	Depreciation and amortisation	Profit before taxation
(1)	£	£	£	£
1 December, 1962 (date of incorporation) to 30th April, 1970	128,245	4,747	10,852	40,000
1970 (30th April, 1971)	198,194	44,347	18,000	12,545

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MAYNARDS LIMITED OUTLOOK FAVOURABLE

The Seventy-fifth Annual General Meeting of Maynards Limited will be held on 15th November, 1971 in London.

The following are extracts from the statement by the chairman, Mr. J. DOUGLAS MAYNARD, circulated with the Report and Accounts for the year ended 30th June, 1971:

I am pleased to report profits before taxation amounting to £383,857, an increase of 39 per cent. Taxation, with corporation tax at 40 per cent, claims £194,000, thus leaving a profit after taxation of £189,703 (£215,887).

Your directors recommend a final dividend of 12 per cent, making with the interim dividend of 6 per cent, a total of 18 per cent for the year. Group sales at £5,625,120 are up by nearly £1,186,000, an increase of 18 per cent.

MANUFACTURING

During the year, our manufacturing plant was kept very busy and we experienced no difficulty in selling the considerable increase in output which I referred last year. Our modern and highly technical plant is functioning very satisfactorily.

Over two years our export sales have increased by 38 per cent.

RETAILING

The conversion to decimal currency went through very smoothly, thanks to careful planning and painstaking training of our staff. We did, however, incur considerable expense in cash till price marking and man-hours training. Power cuts and the postal strike also presented their problems.

The halving of the Selective Employment Tax became effective at the close of this financial year and had no influence upon the profits here recorded. We welcome the eventual abolition of this pernicious tax, but I should point out that the savings to be effected in the current year will be wholly eroded by the progressive implementation of equal pay for female staff.

Our confectionery shops showed an increase in sales over 10 per cent, despite the fact that they were operating from a lesser number of outlets.

The trading result of each of our shops is constantly under careful review, and we do not hesitate to close any shop that does not show a satisfactory return on the capital employed.

INTERIM STATEMENT

Cray Electronics Limited

Interim report

(excluding inter-company sales)
£m before taxation
£m after taxation



	Half year ended 30.6.71	Half year ended 30.6.70
£253,934	£435,676	
56,578	80,065	
40,621	34,028	
54,357	46,036	
15% - 22,500	10% - 15,000	

Sales at the level shown in the first half of 1971 were not maintained during the second half of the year. This was due to a reduced intake of opening new stores which our production had suffered in the prevailing retail climate. The remainder of the year is however traditionally a good period for the company and deliveries are expected to increase.

Industrial Estate-Thames Road-Crayford-Kent
Telephone: Crayford 29251

Throughout the UK call
01-246 8026
for the latest
FT INDEX



GOMME HOLDINGS LIMITED

Increased Dividend and Scrip Issue

Financial Years ended July:

	1967 £'000	1968 £'000	1969 £'000	1970 £'000	1971 £'000
Profit Before Tax	477	736	746	669	943
Profit After Tax	296	423	418	482	588
Ordinary Shares					
Earnings %	32%	48%	48	56	67
Dividends %	22%	25	26	30	35
Capital Expenditure	128	539	450	415	308
Total Assets	2,843	3,637	4,022	4,857	5,050
Capital Employed	1,921	2,054	2,228	2,436	2,727
Return on Capital Employed %	24%	35%	33%	35%	34%

- Since July 1967, turnover and profit have approximately doubled
- Increased dividend for fifth consecutive year
- One for one scrip issue
- Capital expenditure in five years to July 1972 will be over £2,000,000 financed from our own resources

The Annual General Meeting of Gomme Holdings Limited will be held at Spring Gardens, High Wycombe on Tuesday, 30th November, 1971, at 12 noon.

Full Report and Accounts available from the Secretary, Spring Gardens, High Wycombe.

U.K. extends oil pollution powers

FINANCIAL TIMES REPORTER

THE GOVERNMENT has now extended its powers to control and even destroy tankers threatening to pollute the U.K. coastline to cover foreign ships operating outside British territorial waters.

Under an Order in Council published yesterday, and due to come into effect on November 22, the U.K. Government is given express power to take action to preserve the coast from pollution resulting from an accident to a foreign vessel outside its

territorial waters.

Whilst not involving the cost of a full-scale investigation, your directors, with some assistance from their professional advisors, have re-appraised the value of the Company's freehold and long leasehold properties. This reassessment shows a surplus of approximately £1,000,000 in excess of book value subject to taxation. I mention this fact for the information of stockholders, and it is not intended to re-value these properties for the purpose of the accounts.

AMONG THE more draconian measures, it is enabled to take control of the ship, moving it or instructing it to discharge oil and, if it is absolutely necessary, to sink or destroy the ship altogether.

The measures follow the Torrey Canyon disaster and the resulting 1969 International Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties.

The convention, which will come into force 90 days after ratification by 15 states, has so far only been ratified by the U.K., Denmark, Japan and the U.S., but the

Government considers that it is justified in taking its present action under international law.

One reason for the latest Order is to give the Royal Navy the backing needed domestic law and to ensure that persons who suffer damage as a result of such action should not be in a position to sue the Government for damages provided that the action taken is reasonable.

The Government is also keen to encourage other countries to follow its example in ratifying and enforcing the International Convention, which is designed both to clarify international law on oil pollution and also to restrain its powers.

Under this there are provisions for compensation for shipowners and others who suffer loss as a result of unnecessary and unreasonable exercise of national powers, and to ensure that proceedings undertaken before any dramatic action is taken.

Similar powers covering all ships within U.K. territorial waters and ships flying the Oil Pollution Convention under the Oil in Navigable Waters Act passed earlier this year.

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Briton wins Nobel for 'freezing' light

BY DAVID FISHLOCK, SCIENCE EDITOR

A BRITISH scientist, Professor Dennis Gabor, has been awarded the Nobel Prize for Physics for his discovery of holography — lensless photography — in the late 1940s. Professor Gabor, an Emeritus Professor of Imperial College, London, is now working as a staff scientist in the CBS laboratories at Stamford, Connecticut.

He describes holography as the art of freezing a light wave into a photographic plate by means of another beam, and reviving it by laser illumination. The idea may prove the most important of all applications for the laser.

Unfortunately, the ultra-violet light cannot be used to reconstruct the image shortly after the discovery of the laser, an exceptionally brilliant source of illumination, in 1960.

Holographic methods of storing and later reviving information are thought very likely to find a mass market, for example in new kinds of cassette for home films and TV.

The most exciting prospects, however, are the storage in immense quantities of information in an "optical computer," and three-dimensional TV.

Prof. Gabor discovered holography when working as a research scientist with British Thomson-Houston at Rugby after the war. It was one of three lines of research he was pursuing, aimed at improving the performance of the electron microscope.

He wanted to freeze its image in the form of a hologram in the Greek word, meaning whole,

but an American research group revived the idea shortly after the discovery of the laser, an exceptionally brilliant source of illumination, in 1960.

Holographic methods of storing and later reviving information are thought very likely to find a mass market, for example in new kinds of cassette for home films and TV.

The Canadian winner

A Canadian spectroscopist, Dr. Gerhard Herzberg, has been awarded the Nobel Prize in Chemistry. The citation refers to his contribution to the knowledge of electronic structure, and the geometry of molecules and, particularly, of free radicals.

Dr. Herzberg, aged 57, has been with the Canadian Government National Research Council in Ottawa since 1949, where until two years ago he directed the Pure Physics Division.

SE Council climbdown on margins

By Nicholas Leslie

THE Stock Exchange Council has climbdown on its proposals to require both a substantial increase in liquidity margins of member firms and restrictions on securities included in the liquidity margin.

In addition, the Council has given some ground on its original proposal for firms to submit accounts three months after their balance sheet date, instead of the present six, by stipulating a four-month period.

On the other hand, the Council is to make more frequent use of its powers regarding provision of information relating to broking and jobbing firms' finances. This means that spot checks on liquidity margins will be made on all member firms at least once a year, whereas as before such checks were made only when it was felt there was reason to do so.

When the Council first announced its liquidity margin (previously called solvency) plans, the requirement was to have been £30,000 for broking firms and £50,000 for jobbing firms. This prompted considerable discussion among brokers and criticism from a number. Now, it is proposed to leave the margin unchanged at £10,000 and £15,000 respectively.

The meeting comes before a vital motion of no-confidence in Mr. James Gibbons, the present Minister for Agriculture, and a key State witness in last year's arms conspiracy trial, which led to a major split in Fianna Fail over policy towards Northern Ireland.

The Government's attitude towards the North has perceptively hardened in recent weeks, but observers here doubt whether Mr. Lynch's gradual shift towards a hard-line position will yet gone far enough to find support with the dissidents within Fianna Fail.

Their support will be vital on November 10 if the Prime Minister is to fight off the no-confidence motion.

Review

The explanation for this reversal is that proposals for a graduated tax incorporated in the 1971 Finance Bill will not affect firms until 1974. The effect of a graduated tax reflecting income tax and surtax is that firms will incur greater liability since they are not liable for surtax. Liquidity margins will therefore remain unchanged until June 1975, although the position will be reviewed before that date.

Another main proposal announced yesterday by the Council was that firms will be required to submit a statement signed by all partners giving computations of their firm's liquidity margin. This will be over and above accounts for each year.

Mr. Lynch is still hoping for an early political initiative from Whitehall, designed to bring about a revised system of government in Northern Ireland, in order to take credit publicly for the fact that his own brand of quiet diplomacy is having success with the British Government.

But the Prime Minister is under growing pressure from relatives of republicans to relax security directed against Republicans.

A brewery spokesman said yesterday that he had returned to

Dublin to review Ulster policy to-day

BY DOMINICK J. COYLE

THE Government's overall policy on the Northern Ireland crisis is expected to be reviewed in some detail at a meeting of the ruling Fianna Fail Party here tomorrow.

In particular, he is being pressed to revert to the traditional Dublin policy that national reunification is the only real and lasting solution to the present crisis.

This criticism is also reflected within the Cabinet itself, although individual Ministers have refrained from taking exception to Mr. Lynch's policies.

But the fact remains that no political party here can afford to go into a general election over remotely under the criticism of being "soft on the British."

The extension of secured home loans was not intended to match the long terms offered by building societies.

"We ease this sort of loan appealing, for example, to the person with an endowment insurance policy due to mature within the 10 years, or who will be receiving a terminal payment after committing some of his payment."

On Bardaloys, a 7.5 per cent rate of interest is charged on the amount borrowed, making a true rate of between 13.16 per cent and 13.76 per cent according to the length of the loan.

The rate of interest on secured home loans is charged on a reducing balance basis and is negotiable at a level between 3 per cent and 4 per cent above base rate (4.5 per cent), to which it is tied.

GRAND MET BUYS HOTEL IN ROME

Grand Metropolitan Hotel's yesterday announced it had acquired the 200-room Hotel Da La Ville on the Via Sistina, Rome. A refurbishing programme is scheduled to start at the end of November and will continue during the next two winter seasons.

The De La Ville brings Grand Metropolitan properties in Rome up to three.

All these securities have been sold. This announcement appears as a matter of record only.

NEW ISSUE

\$20,000,000

TRW Overseas Finance N.V.

8 3/4% Guaranteed Debentures Due 1986

Payment of Principal, Premium, if any, and Interest Unconditionally Guaranteed by

TRW INC.

Smith, Barney & Co.
Incorporated

Dresdner Bank
Aktiengesellschaft

Banque Rothschild

N. M. Rothschild & Sons
Limited

Algemene Bank Nederland N.V.

Amsterdam-Rotterdam Bank N.V.

Andresens Bank A/S

Arnoldi and S. Bleichroeder, Inc.

Astaire & Co. Baer Securities Corporation Banca Commerciale Italiana

Banco Ambrosiano Banco di Roma/Commerzbank AG/Credit Lyonnais

WALL STREET + OVERSEAS MARKETS

Mild rallying attempts—up 2.12

BY OUR WALL STREET CORRESPONDENT

MILD RALLYING attempts were in progress on Wall Street to-day but little actual progress was made, although some early further losses were recovered.

After falling another 7.23 to 212 in another new 1971 low of \$18.63 in the first half-hour, the Dow Jones Industrial Average rallied to 212.98 for a net rise of 2.12 on the day. The NYSE All Common Index recovered 16 cents to \$51.46, although declines still outnumbered gains by \$21 to \$46.

Volume, however, increased by 237m shares to 13.33m, following some bargain hunting once early selling receded. But for the most part, investors remained on the sidelines.

The Election Day holiday for Banks and some other firms also restrained activity.

Analysts feel the sharply depressed prices early in the session were a carryover of the market's poor showing yesterday.

Uncertainties about the Nixon Economic Programme have weighed heavily on investor sentiment. Also cited as a depressant was a prediction made by political economist Eric Jahnke that the D.J. Industrial Average will plunge to the 500 level next year — a forecast disputed widely.

Helping the Stock Market to-day, one analyst said, was the reiteration by Dr. Arthur Burns, Federal Reserve Board chairman, that he opposes interest and dividend rate controls. He also told the Senate Banking Committee that Congress could ease some of the uncertainties which permeates the business community if it extended President Nixon's power to impose Price and Wage Restraints until 1973.

Among "Glamours," IBM added \$41 to \$295, Bauch and Lomb jumped \$6 to \$153, Disney tacked on \$1 to \$104, while Levitt Furniture recovered \$4 to \$94.

Motors finished firm. Ford rose up to \$361, General Motors \$1 to \$773, Chrysler \$1 to \$281 and American Motors \$1 to \$71.

U.S. Steel were unchanged at \$28, while Republic added \$1 to \$20, as did Armo to \$181. Bethlehem improved \$1 to \$241 ex-dividend.

New Jersey Standard gained \$1 to \$70, but Gulf slipped \$1 to \$226. British Petroleum ticked up \$1 to \$131 on news that Superstett Petroleum Crammen holders approved a merger with BP Canada, a BP unit.

Mobil shed \$1 to \$474 and Nato-mas fell to \$63.

Airlines closed mixed, with Trans World off \$1 to \$34, as were KLM at \$303. Pan Am added \$1 to \$111.

Construction issues were mostly higher. Boise Cascade put on \$1 to \$181 and Weyerhaeuser improved \$1 to \$200.

Nabisco and Wilson moved up \$1 to \$314 — it agreed to buy

Adantic Richfield's Numec Corp. Third Canadian General Investments fell \$1 to \$103.

Golds were mixed at the close, after trading mostly higher through the day. Dome Mines lost \$1 to \$181; American South African Investment gained \$1 to \$33.

The American SE Index closed unchanged at 224.40 in a volume of 3.4m. (2.34m.) shares.

OTHER MARKETS

Canada again lower

Canadian Stock Markets further declined in moderate trading yesterday, under the lead of Gold shares which lost 4.10 on index. Western Oils gave way 2.12, Utilities 1.10, Papers 0.82, Basic Metals 0.87, and Industrial 0.32. Banks, however, firmed.

People's Credit advanced \$1 to \$20.

Home Oil "A" lost \$1, the "B" declined \$1 to \$30, and its results.

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Analysts feel the sharply depressed

STOCK EXCHANGE REPORT

Bear closing leads to rally after widespread big falls

Index down 6.5 at 397.3 after 393.2—Gilt steady

ACCOUNT DEALING DATES

Option

Last Account

Dealing Day

Oct. 28

Oct. 29

Nov. 2

Nov. 11

Nov. 12

Nov. 22

Nov. 15

Nov. 25

Dec. 26

New time?

Deadline may take place

5 p.m. three business days earlier.

Friday's drop of 13 points to

1.7% in the Dow Jones

market's average on scepticism

of the U.S. economic outlook

to substantial

losses in London equities yesterday

a late technical rally left

prices well above the day's

est. Down 10.6 at 3 p.m.

the Financial Times

Industrial share index

up to close 6.5 down on

397.3. This represents

a day and a half since the market's

7% peak for the year

at its lowest for three months.

Trading was usually for small

gains or losses but more

were particularly non-existent

most of the day.

Improvement in the late afternoon

reflected bear closing on the Chancellor's remarks about economic

tension in his speech yesterday

at the annual conference of the

British Association of Directors.

However, losses began to give ground again

as the late rally continued.

London's "index" had been

up with a small net rise. The

rally left London leading

es with net falls generally

ending to 6%. Earlier losses

ranged to 10% and occasionally

more. The F.T. Actuaries

main indices, down nearly

10% per cent, did not reflect the

general improvement.

It's steadier

Stock markings, 12,842,

reflecting the recent fall in

but the technical picture of

day's business was strikingly

stated in the big majority

of stocks.

Yield %

FORWARD HFT

(a) Abrams Management Co.

H.M. Mail, Manchester 2. 0.00 100

Units. 36.8 33.2 1.6 5.00

Units. 36.3 31.8 1.6 5.00

Units. 29.5 31.7 1.6 5.00

H.M. Mail

F.T.—ACTUARIES' SHARE INDICES

These indices are the joint compilation of The Financial Times, The Institute of Actuaries and the Faculty of Actuaries in Edinburgh

EQUITY GROUPS GROUPS & SUB-SECTIONS

Figures in parentheses after sectional names show number of stocks.

	Tuesday, Nov. 2, 1971	Mon., Nov. 1	Friday, Oct. 29	Thurs., Oct. 28	Wed., Oct. 27	Year ago (approx.)	Rights and Loops Index
Indices	With 40% Cor- poration Tax	Day's Change	No. of Firms	Index No.	Index No.	Index No.	1971
No.	No.	%	Price	Index No.	Index No.	Index No.	Since expansion
			yield				
			£				
			£/100				
CAPITAL GOODS GROUP (184)	152.74 -2.6	6.20	10.00	5.93	156.64	157.99	156.80
Aircraft and Components (3)	128.27 -2.6	6.96	19.10	4.87	121.71	130.27	131.17
Building Materials (29)	160.50 -3.0	4.93	20.28	2.41	165.26	166.27	166.50
Contracting and Construction (20)	224.46 -5.0	5.46	18.21	8.42	297.84	271.31	278.65
Electrs. (ex. Electrn. Rad. & TV) (12)	251.94 -2.1	6.41	18.48	3.17	267.71	266.61	271.48
Engineering (79)	124.87 -2.5	7.08	14.11	4.68	138.28	158.19	158.04
Machine Tools (15)	62.10 -0.8	7.78	12.84	6.45	69.68	63.04	93.27
Miscellaneous (25)	130.58 -1.3	7.74	12.93	4.36	162.25	154.20	134.69
CONSUMER GOODS (DURABLE) GROUP (57)	171.77 -2.7	4.45	22.42	5.04	176.55	176.54	178.81
Electronics, Radio and TV (14)	176.91 -0.9	4.18	93.91	2.48	190.88	182.70	183.55
Household Goods (13)	201.59 -2.1	5.86	17.05	3.31	205.70	206.09	206.15
Motors and Distributors (26)	116.88 -5.4	4.32	23.14	2.99	140.20	144.74	140.20
CONSUMER GOODS (NON-DURABLE) GROUP (174)	158.10 -2.1	0.78	17.88	5.01	159.80	181.84	168.56
Breweries (21)	176.85 -2.4	6.71	17.50	3.56	182.12	184.04	182.46
Wines and Spirits (7)	124.33 -2.9	6.67	15.22	4.54	168.97	161.40	160.80
Entertainment and Catering (15)	210.40 -2.4	0.91	19.96	5.38	224.65	229.96	232.53
Food Manufacturing (24)	138.12 -1.5	6.89	17.18	6.93	140.32	142.03	141.94
Food Retailing (17)	147.45 -3.6	5.45	16.30	5.44	165.00	165.66	165.02
Newspapers and Publishing (15)	150.88 -2.1	8.78	17.57	4.67	180.00	184.70	169.55
Packaging and Paper (16)	108.85 -2.5	7.10	14.08	4.76	112.02	112.10	116.01
Stores (29)	149.75 -2.1	4.56	21.91	5.17	102.88	154.56	100.54
Textiles (21)	152.71 -1.9	6.60	16.38	5.43	165.81	166.88	169.90
Tobacco (3)	207.48 -1.2	10.62	2.80	0.65	208.94	214.66	217.90
Toys and Games (6)	61.17 -3.4	0.78	-	5.05	0.94	61.98	05.14
OTHER GROUPS	190.09 -2.0	5.61	18.15	5.61	195.16	196.01	196.00
Chemicals (19)	171.57 -2.3	6.77	17.22	5.89	175.52	179.70	180.07
Office Equipment (10)	168.88 -1.4	5.99	20.64	1.77	171.10	172.44	172.08
Shipping (10)	210.48 -5.2	8.00	11.68	5.22	320.61	322.18	329.05
Miscellaneous (unclassified) (44)	190.09 -2.0	5.61	18.15	5.61	195.16	196.01	196.00
INVESTMENT	162.14 -2.4	5.72	17.47	5.75	166.20	168.07	168.95
INDUSTRIAL GROUP (498 SHARES)	160.95 -2.5	6.45	10.64	4.11	315.28	520.49	522.66
OIL (3)	160.95 -2.5	6.45	10.64	4.11	315.28	520.49	522.66
500 SHARE INDEX	174.45 -2.4	5.83	17.16	5.80	178.77	181.10	181.99
FINANCIAL GROUP (121)	102.09 -9.0	-	-	2.88	168.05	168.05	169.50
Banks (6)	164.81 -0.8	8.87	11.95	5.08	166.14	168.28	169.18
Discount Houses (6)	179.19 -2.6	-	-	-4.42	184.05	184.64	190.04
Hire Purchase (6)	271.86 -1.7	4.68	21.39	2.76	276.67	279.71	280.42
Insurance (Life) (9)	143.86 -3.1	-	-	2.17	148.55	150.15	159.04
Insurance (Composite) (9)	125.95 -0.0	-	-	3.02	187.04	189.63	192.94
Insurance (Brokers) (11)	166.10 -2.2	0.21	18.18	2.72	178.87	174.81	175.80
Investment Trusts (30)	176.16 -3.8	3.20	21.21	5.05	185.81	186.60	184.18
Merchant Banks, Issuing Houses (14)	164.54 -3.6	-	-	8.57	170.64	174.51	174.90
Property (31)	215.87 -2.0	2.83	35.40	2.30	219.68	220.94	220.65
Miscellaneous (9)	182.63 -2.8	5.64	17.74	4.19	187.99	188.76	190.38
ALL-SHARE INDEX (621 SHARES)	171.41 -2.3	-	-	5.61	175.61	177.75	178.78
COMMODITY SHARE GROUPS (Not included in the 500 or All-Share Indices)	—	-	-	—	179.13	175.85	187.32
Rubbers (10)	244.66 -1.3	9.74	10.27	7.44	247.99	950.15	948.32
Tees (10)	101.65 -1.6	16.44	6.08	8.81	102.30	103.14	103.57
Coppers (4)	222.13 -3.4	76.52	1.31	22.25	330.04	230.69	238.09
Mining Finance (11)	70.93 -2.0	7.20	13.89	4.68	79.38	74.03	74.95
Tins (6)	71.29 -0.8	11.09	9.02	8.44	71.84	72.02	73.45
FIXED INTEREST	—	-	-	—	71.13	12.57	71.15
Base Date	Industrial Group	31/12/70	31/12/70	31/12/70	31/12/70	31/12/70	31/12/70
Manufacturing	114.13	—	—	—	114.13	—	—
Retailing	114.13	—	—	—	104/62	—	100.00
Finance	96.67	—	—	—	—	—	—
Rance Brokers	29/12/67	100.00	—	—	—	—	—
Finance and Spirits	161/70	144.76	—	—	—	—	—
Gaming and Games	161/70	135.72	—	—	—	—	—
Equipment	161/70	162.74	—	—	—	—	—
Base Date	Consolidated	—	—	—	—	—	—
Manufacturing	29/12/67	114.13	—	—	—	—	—
Retailing	29/12/67	114.13	—	—	—	—	—
Finance	29/12/67	96.67	—	—	—	—	—
Rance Brokers	29/12/67	100.00	—	—	—	—	—
Finance and Spirits	161/70	144.76	—	—	—	—	—
Gaming and Games	161/70	135.72	—	—	—	—	—
Equipment	161/70	162.74	—	—	—	—	—
Base Date	Consolidated	—	—	—	—	—	—
Manufacturing	29/12/67	114.13	—	—	—	—	—
Retailing	29/12/67	114.13	—	—	—	—	—
Finance	29/12/67	96.67	—	—	—	—	—
Rance Brokers	29/12/67	100.00	—	—	—	—	—
Finance and Spirits	161/70	144.76	—	—	—	—	—
Gaming and Games	161/70	135.72	—	—	—	—	—
Equipment	161/70	162.74	—	—	—	—	—
Base Date	Consolidated	—	—	—	—	—	—
Manufacturing	29/12/67	114.13	—	—	—	—	—
Retailing	29/12/67	114.13	—	—	—	—	—
Finance	29/12/67	96.67	—	—	—	—	—
Rance Brokers	29/12/67	100.00	—	—	—	—	—
Finance and Spirits	161/70	144.76	—	—	—	—	—
Gaming and Games	161/70	135.72	—	—	—	—	—
Equipment	161/70	162.74	—	—	—	—	—
Base Date	Consolidated	—	—	—	—	—	—
Manufacturing	29/12/67	114.13	—	—	—	—	—
Retailing	29/12/67	114.13	—	—	—	—	—
Finance							

CANADIANS

F.T. SHARE INFORMATION SERVICE

BRITISH FUNDS

The Financial Times Wednesday November 3 1971
INDUSTRIAL SECTION

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Stock	Low	High	Stock	Low	High
Low:			High:		
551 Ingleton Lamb.	70	70	1971	Stock	100
18 Ind.C.Climb (10p)	24	24	15111 Bowring C.T.L.	470	15
45 Initial Services	71	71	52111 Brewin Bal. 10p	108	
234 Inter-Chg. Corp.	254	254	19811 Britannia Bp.	98	-2
103 Int'l Compan'ys	112	112	42111 British Linke	426	-10
151 Int'l. Time Rec.	159	159	27111 British Eagle Star (10p)	417	-1
19 Jacks (Wm.)	24	24	29111 British Telecom	289	-1
23 James (John)	33	33	31111 British Tele. & Law	278	-15
192 James (M.R.)	23	23	33111 British Tele. & Law	230	-7
11 Jardine Math. & Co.	52	52	35111 British Tele. & Law	60	-2
11 Jefferies Grp.	93	93	36111 British Tele. & Law	61	-2
371 Johnson Ctr.	62	62	11511 British Acc. 10p	178	-2
21 Johnson Jly.	270	7	16711 British Acc. 10p	244	-4
52 Judge Int.	74	74	18511 British Acc. 10p	197	-3
53 Kalamazoo	170	170	19711 British Acc. 10p	145	-5
53 Kamco 20p	94	94	23711 British Acc. 10p	394	-10
46 Kelway Int. 12p	58	58	29111 British Govt. 10p	350	-5
53 Kennedy Squar.	79	79	31111 British Lloyds 10p	256	-5
78 Kent (Gru. 10p)	80	80	32111 British Mercury 10p	200	-5
211 Kierman	316	316	33111 British Midland 10p	338	-4
52 Kish Int.	56	56	34111 British Natl. 10p	188	-2
22 LBC Int. 10p	115	115	35111 British Natl. 10p	197	-3
711 Lancashire Inds.	83	83	36111 British Natl. 10p	145	-5
22 Lancaster Ctrs.	209	209	37111 British Natl. 10p	157	-5
22 Lancashire Ind.	43	43	38111 British Natl. 10p	178	-5
22 Lawton	83	83	39111 British Natl. 10p	172	-5
22 Lebed Fobet Top	68	68	40111 British Pres. 10p	161	-5
10 Lewis Harris £1	56	56	41111 British Refugee 10p	165	-5
22 Lloyd Assets	107	107	42111 British Royal 10p	74	-5
20 Lep Group (10p)	200	20	43111 British Royal 10p	382	-2
30 Lesney Prods. (sp)	40	40	44111 British Royal 10p	382	-2
311 Lewis & Clark	175	175	45111 British Royal 10p	206	-12
17111 Linc. "A"	144	144	46111 British Royal 10p	178	-5
13111 Linden 10p	26	26	47111 British Royal 10p	161	-5
22111 Lindsey Wmz.	15	15	48111 British Royal 10p	165	-5
52 Linhardt	52	52	49111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	50111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	51111 British Royal 10p	165	-5
51111 Long & Ntnl Secs	62	62	52111 British Royal 10p	165	-5
22111 Longfellow 10p	44	44	53111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	54111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	55111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	56111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	57111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	58111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	59111 British Royal 10p	165	-5
22111 Lawton	83	83	60111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	61111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	62111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	63111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	64111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	65111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	66111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	67111 British Royal 10p	165	-5
13111 Linden 10p	26	26	68111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	69111 British Royal 10p	165	-5
52 Linhardt	52	52	70111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	71111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	72111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	73111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	74111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	75111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	76111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	77111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	78111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	79111 British Royal 10p	165	-5
22111 Lawton	83	83	80111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	81111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	82111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	83111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	84111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	85111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	86111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	87111 British Royal 10p	165	-5
13111 Linden 10p	26	26	88111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	89111 British Royal 10p	165	-5
52 Linhardt	52	52	90111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	91111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	92111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	93111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	94111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	95111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	96111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	97111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	98111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	99111 British Royal 10p	165	-5
22111 Lawton	83	83	100111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	101111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	102111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	103111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	104111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	105111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	106111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	107111 British Royal 10p	165	-5
13111 Linden 10p	26	26	108111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	109111 British Royal 10p	165	-5
52 Linhardt	52	52	110111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	111111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	112111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	113111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	114111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	115111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	116111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	117111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	118111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	119111 British Royal 10p	165	-5
22111 Lawton	83	83	120111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	121111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	122111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	123111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	124111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	125111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	126111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	127111 British Royal 10p	165	-5
13111 Linden 10p	26	26	128111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	129111 British Royal 10p	165	-5
52 Linhardt	52	52	130111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	131111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	132111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	133111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	134111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	135111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	136111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	137111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	138111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	139111 British Royal 10p	165	-5
22111 Lawton	83	83	140111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	141111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	142111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	143111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	144111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	145111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	146111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	147111 British Royal 10p	165	-5
13111 Linden 10p	26	26	148111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	149111 British Royal 10p	165	-5
52 Linhardt	52	52	150111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	151111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	152111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	153111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	154111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	155111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	156111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	157111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	158111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	159111 British Royal 10p	165	-5
22111 Lawton	83	83	160111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	161111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	162111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	163111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	164111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	165111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	166111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	167111 British Royal 10p	165	-5
13111 Linden 10p	26	26	168111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	169111 British Royal 10p	165	-5
52 Linhardt	52	52	170111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	171111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	172111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	173111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	174111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	175111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	176111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	177111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	178111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	179111 British Royal 10p	165	-5
22111 Lawton	83	83	180111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	181111 British Royal 10p	165	-5
10 Lewis Harris £1	56	56	182111 British Royal 10p	165	-5
22111 Lewis Assem.	107	107	183111 British Royal 10p	165	-5
20 Lep Group (10p)	200	20	184111 British Royal 10p	165	-5
30 Lesney Prods. (sp)	40	40	185111 British Royal 10p	165	-5
311 Lewis & Clark	175	175	186111 British Royal 10p	165	-5
17111 Linc. "A"	144	144	187111 British Royal 10p	165	-5
13111 Linden 10p	26	26	188111 British Royal 10p	165	-5
22111 Lindsey Wmz.	15	15	189111 British Royal 10p	165	-5
52 Linhardt	52	52	190111 British Royal 10p	165	-5
22111 Lipson J.L.	108	108	191111 British Royal 10p	165	-5
51111 Lloyd's Ind. 10p	69	69	192111 British Royal 10p	165	-5
51111 Longfellow 10p	44	44	193111 British Royal 10p	165	-5
56 Los Angeles Univ.	43	43	194111 British Royal 10p	165	-5
56 Louis Bonar 10p	127	127	195111 British Royal 10p	165	-5
711 LRC Int. 10p	115	115	196111 British Royal 10p	165	-5
71111 Lynton Inds.	83	83	197111 British Royal 10p	165	-5
22111 Lancaster Ctrs.	209	209	198111 British Royal 10p	165	-5
22111 Lancashire Ind.	43	43	199111 British Royal 10p	165	-5
22111 Lawton	83	83	200111 British Royal 10p	165	-5
22111 Lebed Fobet Top	68	68	201111 British Royal 10p	165	-

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PROPERTY—Co

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TRUSTS, FINANCE, LAND—Continued

PEAS CONTINUED

service is available to every Company dealt in Exchanges throughout the United Kingdom.

£250 per annum for each security.

10. The following table gives the number of hours worked by each of the 100 workers.

**JONES LANG
WOOTTON**

Chartered
Surveyors

Lombard
World
reserves—
quality v
quantity

BY C. GORDON TETHER

The spectacular upsurge in international reserves that preceded the collapse of dollar convertibility in mid-August has clearly made nonsense of the global calculations on which the arrangements for annual releases of \$3,000m. odd of Special Drawing Rights to keep the international liquidity supply abreast of demand were based. But the nature and distribution of this "windfall" addition were such that the case for discontinuing SDR releases until it had been digested is by no means as strong as might appear at first sight.

In the second half of the 1960s world reserves rose from \$60,000m. to \$75,000m.—an annual rate of growth of a bare \$2,000m. or 3 per cent. This year 1970, however, brought a jump of no less than \$14,000m. And the first eight months of 1971 saw the process moving into an even bigger gear, the end-August figure of around \$113,000m. having been as much as \$15,000m. beyond that for the year.

The assumption

The plan for the annual creation of \$3,000m. or so of SDRs—the third of which is due to take place in two months time—was based on the assumption that the growth of international liquidity under the traditional headings would slow down—so much so that artificial additions to the supply would be needed to ensure that there was enough to support the continued growth of world economic activity. In the event, in less than two years the flow from the old sources has been equivalent to the amount that would be generated by a whole decade of SDR releases.

That might seem to mean that the world is now so glutted with liquidity that it will be able to make do without SDR boosts for a long time to come. And no doubt it would be altogether reasonable to argue this way if the recent massive additions to the stock bad been of appropriate quality and had also been more or less evenly distributed. But in fact they have satisfied neither of these criteria.

Taken together, reserves expressed in gold and gold-linked SDRs or reserve positions in the Fund have increased by only about \$3,000m. since the beginning of last year. The remaining \$30,000m. added to stocks reflects the upsurge in the reserve currency element. This was produced in part by the continuing U.S. deficit and in part by the enthusiasm private owners of dollars developed for off-loading their holdings onto central banks.

Watered down

With the dollar's short-term future looking so uncertain this has involved a further watering down of the quality of international reserves, which to a large extent cancels out its effect on the quantitative aspect of the international liquidity problem. Moreover, such benefit as the sharp rise in the quantity of reserves conferred has for the most part fallen on countries that were already well-placed in this respect—either indeed in such a comfortable position that the new inflow has been nothing more than an embarrassment. Thus, between them Germany and Japan have accounted for almost two-thirds of the mammoth jump in reserves recorded since the beginning of 1970. Belgium, France, Italy, the Netherlands, Switzerland and Canada—all countries that had more than enough already—have absorbed most of the balance.

Excesses

Furthermore, to the extent that the growth of official reserves this year has been associated with the deterioration of private holders of dollars to let central banks carry the risks connected with them while waiting for the international monetary sky to clear, it is to be presumed that there will be a run-down if and when confidence in the dollar starts to revive.

Of course, if freely floating rates are here to stay, the world's overall need for reserves may be materially reduced. But at the moment it seems more likely that there will eventually be a return to some kind of fixed rates pattern. In that event, and even if the new system does permit wider day-to-day variations either side of parities than we have been used to, a large part of the world will continue to need regular additions to its liquidity stocks—and additions of appropriate quality.

This adds up to a strong argument for keeping the SDR very much in the picture. If the effect of continuing the annual releases would be to cause the total liquidity stock to become excessive, the answer does not lie in restricting the growth of SDR element. It should be sought in the early retirement of the excessive quantities of dollars at present clogging the system.

THE LEX COLUMN

Parallels in the equity market

If the view is the right one, to come. It is that now is no moment to be selling shares. For the Dow Jones one could make a more positive guess that the short-term downside potential is minimal with an upside of 60 points or more.

Avery

Avery's first half profit explosion has duly appeared, with a pre-tax rise from £1.26m. to £3.25m. The decimalisation tax charge, lends support to the company's apparent in the latest sequence of profits for the four half-years to (effectively) June this year—£2.06m., £1.26m., £3.1m. and £3.25m. But the Brooke Bond Liebig new factor is a forecast that the year's profit will be "con-similars in excess of" last £12.89m. pre-tax for the year instead of "will match," U.K. capital allowances and which was the assessment in lower minorities—operational problems in Tanzania—leave

As to pinpointing the bottom it is a fait fait that it came yesterday in New York (and London), when a plunge of over 20 DJI points in one and a bit trading sessions and light volume was dramatically reversed. The message for London is not necessarily that this is just the moment to commit medium-term funds to the equity market for we could still have some more consolidating of the February-July rise yet

times in the U.K. tea market in the second half, implying following stockpiling ahead of an annual post-decimalisation price increase. Some growth and a closer eye weakness in the past fortnight to the relationship of costs and the forecast is a useful reminder prices could be the main of BBL's geographic and pro-explanation. The above figure, dient spread. Asia accounts for in any case, would indicate roughly 1% per cent of earnings of 48p per share, and ings with a negligible contribution from Pakistan, and North America—Australia must be nearly matching that level now. Beef costs are rising in the UK, but boosting ranch profits in South America: U.K. tea consumption is declining but there are lower leaf costs and rising value added, with group tea bag sales up by perhaps half on last year, and tea bags still account for no more than 15 per cent of the market.

BROOKE BOND LIEBIG

Brooke Bond Liebig As for positive arguments, Europe currently accounts for around 8 per cent of group capital employed and a similar slice of sales, up from nothing in five years. Losses last year may have approached £1m. after the French minority stake that there has been a partial con-

Germany, and the U.S. as an to 5.71p making 13.09% for the example of overseas marketing past reported twelve months. flair. That does not add up to As for prospects, growth should anything dramatic in the be taken further in the current immediate future, but nor does quarter, which was a poor p/e of 13.9 at 69p.

Index fell 6.5 to 397.3

De Rue

De Rue's half-time story

is sales still 13 per cent higher

but second quarter profits 37

per cent better at £297,000

pre-tax after a 13 per cent gain

in the first three months.

Margins, then, are beginning to recover—if slowly at 5.8 per

cent pre-tax to sales for the first half—and that suggests a combination of lower unit costs

and higher prices, the latter

certainly for Formica and Potterton in the U.K.

Formica's global profitability

is still a conundrum, given

another fall in second quarter

profit drop: from £726,000 to

£106,000 in 1969-70, but there's

still room for growth here, and

in the other divisions. In 1972,

the shares do not look

overstretched yet on a p/e of

16.

Smiths Industries

Smiths' turnout for 1970-71

pre-tax profits of £5.43m. against

£4.16m. previously and £4.76m.

in 1968-69—is ahead of the

average external target but that,

on its own, does not justify a

6p rise to 173p on a day like

yesterday. What does, perhaps,

is the broadly based nature of

the rise in a year when the

spotlight was on Smiths' vehicle

original equipment sales, and its

commitment to EIMC. In par-

ticular, EIMC's recent come-

back to normal after a trading

profit drop: from £726,000 to

£106,000 in 1969-70, but there's

still room for growth here, and

in the other divisions. In 1972,

the shares do not look

overstretched yet on a p/e of

16.

CASHMORE

for

steel

business

WEATHER

UK TO-DAY

Scotland, Northern Ireland

most of Northern England

have a dry day with sun

but it will be colder than

Wales, the southern parts

of Northern England and

East Anglia will be

dry though rather cloud

sunny, rain chiefly in

the hills. Temperatures

near the seasonal

Southern England will be

dry and sunny but with

patches are likely early in

it will be warm.

London, S.E., Cent.

S.W., England, Channel

Dry, sunny spells. W.

light or moderate Ma

(50°F).

E. Anglia, E. and W. M

N. and Cent. N. E.

Mostly dry but rather

occasional rain chiefly ov

Wind S.W. variable or lig

IC (52°F).

Lakes, E. of Man, N.E.

Borders, E., N.W., S.W., S

Glasgow, Argyl, N. Ire

Sunny spells; mostly a

few light showers near coasts and over hills

N.W. light, rather cold

(48°F).

Edinburgh, Cent. High

Dunbar, Caithness, Ork

Sunny spells, mostly dr

N.W. moderate, first

Max. 58 (48°F).

Outlook: South, Conti

and rather warm. North, abla with rain at times.

Lighting-up: London: 1

BUSINESS CENTRE

Y/day

Midday

4pm

Paris

Brussels

B. Aires

Cardif

Colonia

Copenhagen

Edukt-rab

Frankfurt

Geneva

Gibraltar

Hong Kong

Jersey

Kuala Lumpur

Lisbon

London

Madrid

Milan

Moscow

Newcastle

Notting-ham

Oslo

Rome

Rio de Janeiro

Rio de Janeiro